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Indications of Prosperity.

Despite the statements of those who speak as men having the authority of knowledge and judgment that there are evidences of a tendency on the part of industry and commerce in this country to return to their normal, healthy condition, the cry comes from certain quarters that prosperity is no nearer than it was twelve months ago. The explanation of this bearish inclination is to be had in the pessimism that takes delight in contemplating its own blind misery and in the determination of would-be prophets to carry their predictions to a fulfillment. The prophet who has within himself the means of making good his prophecy cannot fail to be a success, and unfortunately the seers of evil may sometimes bring evil to pass by persistent reiteration, even in the face of facts, of denials that good exists or can exist.

Fortunately, however, the logic of the situation at present preponderates against the wailers. Nowhere is this more manifest than in the South. There is no boom and nobody expects one. But there are certain significant facts of a most encouraging character. Since the first of the year provision has been made for an expenditure of at least \$7,000,000 in municipal improvements in that section; Southern railroads have placed orders for at least 100 locomotives; for the extension of one railroad alone \$4,000,000 worth of bonds have been marketed; the growth of export business at Southern ports has been marked; cotton manufactures have fairly held their own; a new departure, rich in possibilities, has been made in the iron industry; coal is to increase its importance, and lumber, particularly in the Texas region, has showed signs of improvement. The spring trade in early fruit and vegetables, becoming more and more valuable, has been a success, and the march of the reapers from Texas northward records excellent crops. Accompanying these manifestations are the inception and progress of many building operations in all of the States and the enlargement in some quarters of

industrial undertakings and the planning for others.

These are definite facts with which the readers of the Manufacturers' Record are well acquainted, and reference is made to them for the purpose of demonstrating not only that there is confidence in the future among the many interests, which, working upon each other, make the resultant progress, but also that there is a well-defined purpose to be prepared to take advantage of the future.

Patriots will not grease the track for the engine of prosperity, but will help to shovel coal into the fire-box.

The Duty of the Hour.

Reviewing contemporaneous discussion in the Georgia press regarding the paralyzing effects of unjustifiable and vicious crusades against corporate undertakings, the Savannah News takes the wise position that "the need of the times is for building up, not tearing down; for launching, not wrecking; for strengthening confidence, not weakening it." Such doctrine should be proclaimed unceasingly not only in the South, but in other parts of the country, until the people, who ought to be responsible for legislation, have been persuaded to lead instead of being led in the selection of their representatives.

The reasons for such action are well set forth by ex-Governor W. J. Northen in an interview in the Atlanta Constitution dwelling particularly upon one phase of corporate capital, the railroad. He said:

It has been constantly a matter of wonder to me that the railroads have not more aggressively asserted themselves and declined to render any service to anybody except such as may be exclusively in their individual interests.

In spite of all the wars made upon them they are doing more for the good of the State than any other corporation or class of our people. I am in position to know, further, that they are doing more for the State than the State, through its general assembly, has done for itself. Outside of the individual efforts made by separate lines, the leading railways of this State have put into my hands for the development of our resources \$1000 for every \$100 put into the hands of the commissioner of agriculture by the State for our advertisement abroad. The railroads, therefore, are entitled to whatever good has come to the State through my efforts in the location of people and the establishment of industries, largely increasing our tax values and lifting burdens from all the people. Nothing has ever approached these results, from any other source or effort, in the State or by the State itself. Yet these corporations are vigorously and constantly fought by the people whom they have so generously served in this and many other ways. The railroads have never declined or hesitated to encourage most liberally every industry, institution or organization that promises good to the common people. . . .

It is absolutely impossible to estimate the vast amount of general good that has been accomplished by the railroads for the best interests of the State along many other lines, hampered as they have been by a continual nagging on the part of the people whom they have most generously sought to serve. In my candid judgment the time has come in the history of our institutions and the advancement of our people when we should call a halt to much of the unwar-

ranted war that is being made upon these necessary factors for strengthening the State. Let us quit killing the goose that lays the golden egg and turn our guns upon those that lay no eggs at all. If we ever become prosperous as a people we must go to work ourselves and quit interfering with others who are doing better work than we. Give the railroads a cessation from strife and satisfy the outside world that capital invested in Georgia in a legitimate way, for legitimate purposes, will have absolute protection and made secure in its profits.

That is sound doctrine for a State well equipped with transportation facilities, and harmonizing with it is the contention in Arkansas, by the Gazette, of Little Rock, that "where raw material is to be had in inexhaustible quantities no one will invest his money in utilizing it if he is unable to transport his products to the buyer. No matter how great the natural wealth of a State, it cannot be developed without railroads."

In no other State in the South has the anti-railroad agitation been permitted to reach such proportions as in Florida. And, according to a statement of a Cabinet officer of that State in the Baltimore Sun, its explanation is boldly apparent and the way to a remedy is clearly indicated. He says, alluding to the railroad commission law:

If you want to know how that law came to be enacted, it is entirely due to selfish, factional politics and the fight for the United States senatorship. The railroad haters rushed the measure when the senatorial fight was hottest, and neither side dared oppose or delay it, fearing such action would injure senatorial prospects. Perhaps there is a lesson in that.

The lesson is very obvious. It will not do for "the strong conservative feeling among the best men of the State" to wait until violent and destructive measures are sought to be enforced by the commission to check it at the ballot-box. It is the duty of conservative elements everywhere to bring public sentiment to a point where a realization of the menace to the best interest of a community, existing in a fear that senatorial prospects or any other political undertakings may be blasted by opposition to dangerous legislation, shall lead the people to choose as their lawmakers only such men as will sink national party differences, frequently consisting only of a purpose to hold offices, in a determination to look exclusively to the welfare and upbuilding of their State. They should bear in mind the truth and wisdom of the words of Mr. John E. Searles in last week's Manufacturers' Record:

If at this particular juncture, where in many of the States efforts are being made to hamper capital and attempts by legislation to restrict its use, the South were to throw its doors wide open, with guarantees of protection to investors, I believe there is no more for it such prosperity as would surpass anything the country has ever yet seen.

As was to be expected as a part of the campaign to interfere by artifice with the natural trend of outbound commerce from the West and Northwest to Southern points, the report has been circulated that "protests are

reaching the State Department from Europe about the poor corn sent to various parts of England, Germany and other countries from the United States, etc." The significance of the whole publication, which is, of course, intended for use only at points of grain shipments, is made obvious in the statement that the only port mentioned from which corn reaches Europe in faultless condition is New York. The "corn-dodger" has been discounted as an effective weapon for the defence of New York, but the appearance of the rather indefinite information about alleged complaints is but another indication of the purpose of the metropolis to avail itself of every means to prevent the inevitable.

The South Pleased Him.

According to his opinions, expressed after a brief trip through a portion of the South to visit the Nashville Exposition, the anticipations of Secretary Wilson about the South have not been disappointed. Naturally his opportunity for judging of the whole region known as the South was rather limited, but no one will question his judgment of the patriotism, hospitality and other attractive traits of the people. This judgment will be confirmed in him when he makes his proposed extended trip through the South for the purpose of studying its resources and becoming better acquainted with its people.

One practical result of his visit will be the preparation of a bulletin on the subject of reclaiming worn-out soil. This promises to be an important study. In the richness and extent of their territory many Southern agriculturists have in the past been rather prodigal of the soil, but with the rapid migration of homeseekers from less inviting sections has come a realization of the importance not only of maintaining the productivity of the land now under cultivation, but also of looking to the future demand by taking steps to bring under culture again the land in some sections which has been allowed to deteriorate. Secretary Wilson has decidedly practical views on this subject, and from the hints which he has already let fall his study will be of great value to those who would conserve fruitful soil and reclaim the waste places.

Two Southern Governors.

In a letter to the Manufacturers' Record, Governor G. W. Atkinson, of West Virginia, writes:

The Manufacturers' Record is recognized as the leading industrial paper of the Union, and what you say, therefore, is considered by the people. I shall do my utmost to bring the great natural resources of my State to the attention of the enterprising people of our country. We have more coal, iron, oil, gas and timber in our State than any other State in the Union. This is no idle boast of mine, but, on the contrary, it is absolutely true. If the wealthy, enterprising men outside the State of West Virginia were informed as to the extent of our natural resources there would be a flocking

of people and capital as well within our bounds.

Governor Atkinson is not standing upon words alone, for in a recent issue of the McDowell County Recorder he published a succinct statement of the resources of the State, dealing with agriculture, stock-raising, location, climate, rainfall, geology, water-power, timber, coal, iron, salt, oil and gas, railroads, miscellaneous minerals and educational facilities. The facts are tersely put, and their publication is likely to prove of benefit to West Virginia.

Similarly inspired with a purpose to do all in his power to advance the interests of his State is Governor Joseph F. Johnston, of Alabama. In a letter to the editor of the Manufacturers' Record he says:

I know of no one whose good will and assistance is more productive of good to the people of Alabama than yourself, and I beg to assure you that we are grateful. What we need is refuge from political strife. If we could separate our elections into periods of six years a large amount of misplaced energy would be directed into fruitful channels.

Every sensible man will endorse such sentiments. But politics is a pall upon progress and prosperity hard to be lifted. Its evil, however, may be minimized by carefully instilling into the minds of the people the truth that only those should be allowed to enjoy the gift of the people who will devote themselves to the good of the people, and by nourishing that wisdom and common sense which readily detects in base appeals to prejudice and unreasoning passion the purpose to subserve purely selfish ends.

The Mississippi Levees.

The Mississippi river commission has apportioned the \$2,000,000 available for levee work, Louisiana securing \$1,002,925, Mississippi \$769,750 and Arkansas \$227,325. The apportionment appears to have been made with an impartiality that cannot fail to give satisfaction, and the work of repairing the damages of the spring and guarding against another flood may now be prosecuted. But the problem of making unnecessary such expenditures at stated intervals has not approached nearer to its solution. It awaits the action of the Senate committee, which is to report next December. It involves interests of a majority of the States and Territories, and can be settled only by a co-operation of all in whatever plan may be devised under the auspices of the general government.

Against Improper Packing.

At a recent meeting of farmers in Charles county, Maryland, it was resolved to use every care hereafter in packing tobacco in reference to grades, color and condition. Complaints about tobacco have been made by foreign buyers, and this action, which should be generally adopted, is intended to remove the cause of such complaints. But the principle should not be confined in operation to tobacco alone. Objections are raised from time to time against cotton, apples and other American products sent abroad. Of course, some of these are founded only upon commercial or agricultural rivalry, but not infrequently they are the result of the bad condition in which they reach the ultimate purchaser. For this the imperfect packing at the point of production is responsible. This may be remedied only through the intelligent action of the producers

themselves. In this age of sharp competition it must be remedied if American products are to maintain their importance abroad.

IMPRESSED BY THE SOUTH.

Secretary Wilson's Trip to Nashville to Have a Practical Outcome.

The Secretary of Agriculture, after his return from the presidential trip to the exposition at Nashville, has given to Mr. Thomas P. Grasty, of the Manufacturers' Record, an interesting interview concerning his impressions regarding the South and its varied interests. He speaks enthusiastically of the reception the President received all along the line, and says the President was greatly pleased with the cordial greeting given by the Southern people everywhere.

The Secretary made a careful study of Southern agriculture, and has some decided opinions regarding it. It was his first trip in the South, and the conditions, as he observed them, made a strong impression upon him. All the way from the District of Columbia through the Virginias, Tennessee and North Carolina, he saw soil that has long been under cultivation, much of which, through want of proper diversification of the crops, has been greatly reduced in fertility. "The conditions in the South and North," said he, "are quite different. There is more heat and more rainfall in the South. These factors and continued cultivation have a tendency to reduce the organic matter in the soil and bring about a continual loss of nitrogen and a reduction of the soil to a condition where little remains but the mineral plant food. Heat and moisture bring about decomposition. The nitrogen found in the organic matter is returned to the atmosphere, and the ability of the soil to produce is consequently lessened. There are no roots to hold the soil together in the old cultivated lands. Where there is less heat and less moisture, decomposition of organic matter proceeds much more slowly. The Northern latitudes suffer no loss of organic matter during the winter because the low temperatures prevent decomposition, but in the South the reverse of this is the case."

The Secretary is of the opinion that the system of agriculture in the South should be radically changed. More grasses should be sown and more leguminous plants cultivated. "Clover, beans, peas, etc.," he continued, "are required to restock the soil with nitrogenous matter. The cow and mutton sheep should be introduced in the South to a much greater extent. The country gone over by the presidential party is largely natural grass land, which would be quite responsive to good treatment. With a smaller percentage of land brought under the plow, larger crops would be had from the land that would be cultivated and a gradual recuperation of the soil would take place."

The Secretary visited the Belle Mead farm, and was delighted with the herd of 400 deer running at large, and took a lively interest in the 150 thoroughbred brood mares there kept, and the finest horses of that breed to be found anywhere. "But," said he, "I was more interested in the intelligence displayed by General Jackson in the introduction of 100 dairy cows. The General is an educated man, and reflection has taught him that he should produce something that the world wants every day. The cow meets this requirement. Butter takes nothing from the soil; all of it comes from the atmosphere, or nearly all of it."

"The Southern farmer," the Secretary went on to say, "should turn his attention to products requiring the highest

skill—products which take just as little nitrogenous matter from the soil as possible.

"There is no doubt but that manufacturing and mining will add new population to the South in the future, and furnish a market for important farm products to a much greater extent than is provided at the present time.

"The Nashville Exposition is arousing all over the country a livelier interest in the South, its resources and what its enterprising people are doing, and is very suggestive of what they may do.

"There are many things that might be said of the Southern people that I have never seen in print. They are almost purely Americans. The average education is quite high. We were furnished with some gratifying illustrations of how well-bred these people are. For instance, in the middle of Governor Bushnell's speech Mrs. McKinley entered the hall. Everybody arose and greeted her most cordially—men, women and children. It has been said that the Southern women have not given up the old struggle. There was certainly no indication of it there. They were put to a severe test, however. At the close of the exercises the 8000 people in the hall were requested to remain seated while the President walked out. There were no policemen or militia to enforce this request. Not a man, woman or child moved until the President had gone out of the hall. That would only happen among a well-bred, considerate people. Indeed, I have seen it tried in several other places where both policemen and the military were present to enforce order and thoroughly failed to prevent men, and women, too, from rushing in to get as near the President and Mrs. McKinley as possible. The President and his party were greatly pleased with the reception and kindness shown Mrs. McKinley, and, of course, he was delighted with the cordial recognition given him. He, without question, takes as much interest in the people of the South as he does in those of any other part of the United States."

The Secretary is using every effort to make himself familiar with the industries of the Southern people along agricultural lines, and has been prompted to undertake personally the work of preparing something on the subject of recuperating worn-out soil, to be sent out to producers in the form of a farmer's bulletin. He thinks this will be suggestive to the people of the Southern States as well as to the people of the Northwest, to whom a word of warning concerning the dangers incident to careless cultivation may not come amiss.

SOUTH CAROLINA GRANITE.

A Lead Fine in Quality and Quantity in Fairfield.

From Rockton, on the line of the Charlotte, Columbia & Augusta Railway, leading in a general trend southwest sixteen miles to the Broad river, and about one mile wide, is found one of the finest leads of granite to be met with either North or South.

On this lead are found four distinctive characters of rock—different in appearance but the same in physical character—all alike free from iron or other elements causing decay where exposed. These varieties are known locally and commercially (1) as "Winnsboro gray," (2) "Winnsboro medium-grained blue," (3) "Winnsboro fine-grained blue" and (4) "Red Scotch granite."

From Rockton a standard-gauge railway has been constructed along this granite lead to the Rion quarry, four miles from this to the Bundrick quarry, three miles, while the same line is being

continued to the Anderson quarry, five miles, and thence over open and well-known quarries four miles to the line of the Columbia & Greenville Railway on the eastern bank of Broad river.

The Rion quarry has been extensively operated, and an extensive and costly plant has been erected. At one mine blast over 800,000 tons of rock has been lifted, sufficient for several years to split from.

To separate this into dimension stone but one hole every foot is necessary to ensure right line cleavage. (New England stone would require double the number of holes to accomplish the same end). The Rion quarry likely supplies the best stone for general purposes, while the stone mostly preferred for monumental purposes comes from the Bundrick and Anderson quarries. The bearing strain from these quarries is thirty to 3200 pounds.

The Anderson quarry shows ten acres of naked rock exposure. This exposure on one side is a bluff 175 feet high, and here millions of tons of easily-quarried stone are in sight. This rock is of the very best quality, while the four miles of trend from the Anderson to the Columbia & Greenville Railway, not now operated, from indications will supply stone equal to if not superior to either of the three quarries named. Several other quarries are operated on a smaller scale, supplying good stone, but which were not visited by the writer.

These quarries have been operated about fifteen years, in which time the shipping of rock has been constantly on the increase, and shipments made to Pittsburg Pa., over the two Carolinas to Cincinnati, Ohio, and as far as New Orleans, La., to Pittsburg, to build the Carnegie Library, the Hussy Building, the Fidelity & Casualty Building, and the Carnegie Office Building, the Beirhorst mausoleum at New Orleans, La., the Calhoun monument and other monumental structures in Charleston, S. C., the Daniel H. Chamberlain family monument at Brookfield, Mass., and to build United States courthouses and postoffices at Charleston and Greenville, S. C., and for the same purposes to Asheville, Statesville and Wilmington, N. C., while Belgian blocks for pavements have been and are now being shipped by the million to Cincinnati, Ohio, and to other cities, and large shipments have been made of stone to build the jetties at the entrance of Charleston harbor, South Carolina.

About \$2000 to \$3000 weekly is now being paid to operative labor at these quarries. The sixteen miles of railway are the property of an incorporated company operating the Rion, Bundrick and Anderson quarries. Leading, as this railway does, from one branch of the Southern Railway to another of the same system, this company has at command the best of shipping facilities to any reasonable distance around. Ample Southern capital is now concentrated at these quarries to supply all demands on them to the full extent of the Southern Railway's shipping capacity outward. The quarrying is done by cheap Southern labor, which is found efficient, and of which there is an abundant supply at hand.

I. L.

A Report Denied.

In a letter to the Manufacturers' Record the William Cramp & Sons Ship & Engine Building Co., of Philadelphia, writes that the report that they might establish a ship-yard at some point on the "waters of the Chesapeake" is entirely without foundation, and that the company has not had the slightest intention of placing a ship-yard in this locality.

UNITING COTTON AND WOOL.

Edward Atkinson's Suggestions to
Booker T. Washington.

Edward Atkinson, of Boston, has written a lengthy letter to President Booker T. Washington, of Tuskegee Institute, Alabama, urging a trial of his favorite theory of raising cotton and wool from the same field. Writing to the Manufacturers' Record, Mr. Atkinson expresses confidence that his theory of feeding sheep on the cotton-field, doubling the cotton crop, adding to the wool clip and improving the conditions of agriculture at every point will be first developed at Tuskegee, and will spread from there throughout the Southland. Professor Washington writes that "we are going to make an effort in our agricultural department to carry out Mr. Atkinson's suggestion, and hope to report from time to time our progress. I think this matter is very vital to the South." The following extracts from Mr. Atkinson's letter are particularly interesting:

"If I am rightly informed, the climate, condition and season in which the cotton plant thrives most fully are also most conducive to the health and development of the sheep. You have a light soil, readily drained; therefore, freedom from foot rot in the sheep. You have frequent showers, free from heavy rains; therefore, conducive to the health of the sheep. You have a warm climate, not so hot as to convert fine wool into wiry wool, changing from summer to winter so gradually as not to alter the condition of the sheep and not to require any change from fold to barn or other shelter; therefore, you have uniform conditions of growth, establishing uniformity in the staple of wool. You have not too rich an herbage in your natural pastures. With sheep herded you may be governed by a knowledge of the right methods in feeding the sheep so as to give the exact elements that are conducive to health and full development. You may breed almost any cross to meet special conditions of special sections.

"We now come to the union of the cotton and wool on the same field. First, as to a method which I think has never yet been tried. If I am rightly informed, loose, blowing sand in Norfolk, England, has been enclosed, sheep placed within the hurdles, fed in the first year from food grown outside, gradually trampling and fertilizing the sand; presently turnips are planted, the sheep feeding on the turnips from the ground, stamping and manuring until at last these blowing loose sands have become the most fertile market gardens of England. The turnip and artichoke will grow all over your section.

"And now we come to the lay-out of the cotton-wool farm. Suppose we assume a field of 400 acres, more or less, divided into sections by a five-row, barbed-wire, dog-proof fence, surrounding the whole and separating the four sections. In the middle, in a square, cutting off the corner of each field, we put the sheds for folding any cattle that might need shelter, the cotton gin, the cotton press—notably the new cylinder press turning out bales ready for the market—and the other farm buildings.

"Then we come to our rotation. The land being already in fair condition, we put one lot into cotton the first year. We plant turnips in the next field, and at the proper time turn in the sheep. In the interval the sheep have been folded in the third section, fed in the first year from outside sources. As soon as the turnips are ready to be pastured, they will be fed; we may yet have time to plant a leguminous plant in the field first occupied, and also after the turnips are

fed, by the sheep, to be turned under. In the fourth we plant corn and other suitable crops. Having made this beginning, taken off the crop of cotton—saving all the cottonseed meal and the waste of the cotton plant—also a crop of corn, the cornstalks being ground, the pith separated under the Marsden process, so that the ground residuum, which is better than the best of hay, may all be fed; we are now ready to turn our sheep into the cotton-field to prepare it for the next season, turning in cattle into another section to be fed on the corn and the ground cornstalk meal, and raising our hogs on chufas and artichokes, to be finished off with a little corn, or, what is better, a little barley or other grain, which makes a harder pork, less oily. Herein you have a rotation according to nature. You might from time to time need some of the cheap 'kainit' or other alkaline fertilizers to make up for that deficiency, but in all else you have the elements for improving the soil up to its highest standard while taking from it the maximum product of cotton, wool, mutton, beef and pork.

"If my observations are correct, every type of wool that the world needs, except possibly the mean, wiry, semi-barbarous wools, which are used in making carpets, can be grown in some part of the Southland under the varying conditions of mountain, valley, plateau and plain. The Australian breed ought to be tried in the Panhandle of Texas upon the great 'staked plain,' so-called. There is but one thing needed to bring about a wool supply not only equal to all our own demands, but to take the leading position in the export of wool for the supply of other nations, and that is, protection from the cur dog. Until it shall cease to be necessary to surround the sheep fold with a five-row, barbed-wire, dog-proof fence, progress in the production of wool in the Southland will be very slow. Yet you can protect sheep in the manner described, and I believe it to be wholly within the power of the members of the Tuskegee School to prove the theory which I have laid down in this letter. I think, for the third or fourth time. Does it remain for you to take up this theory heretofore ignored, and perhaps convey a great boon to your whole section?"

Improvements at Sabine Pass.

In a letter to the Manufacturers' Record, the Sabine Land & Improvement Co. states that it has recently closed a contract for dredging a second slip at its new townsite at Sabine Pass, Texas. The slip will be 1000 feet long, 200 feet wide, with over twenty-seven feet depth of water. It is also stated that company is constructing a hotel at this point, and a number of stores are in process of construction. W. L. Parkinson is general agent of the company. The town of Sabine Pass is located at the entrance to Sabine lake, and is at the terminus of the Sabine & Western Texas division of the Southern system.

Building Activity at Norfolk.

In a letter to the Manufacturers' Record, Messrs. J. P. Andre Mottu & Co., real-estate operators, Norfolk, Va., write that building operations are quite active in that city at present, and that there is a decided improvement in business, in their opinion. Among the large buildings planned or for which contracts have been awarded are the Citizens' Bank, which is to be seven stories high and fire-proof, for office purposes. This will be one of the finest office buildings in the South, and is to be completed early in 1898. The Monticello Hotel, already described in the Manufacturers' Record, is under way, and a contract has also been let for

several large cotton warehouses on the harbor. This does not include the improvements which the Southern Railway Co. is to make at its terminus at Pinner's Point. A number of handsome private dwellings have been started in the city; also in Ghent, the new residence suburb of Norfolk.

GALVESTON'S BRIGHT PROSPECTS

Seeking Opportunities to Increase
Its Commercial Facilities.

In a letter to the Manufacturers' Record, which he says "has done more to build up industries of the South than any other paper to my knowledge," Mr. H. B. Cullum, chairman of the Galveston committee of the Deep Water Utilization Committee, alludes to the following statement in the Buffalo Express regarding the depression among vessel-owners on the lakes:

"Rates are now as low as they can go to keep vessels in commission. The slightest depression in business is felt by vessel-owners under the existing conditions. The light demand for ore is keeping 25 per cent. of the tonnage in ordinary, and more than half the boats that are running find it difficult to secure cargoes."

He suggests that the lake vessel-owners might seek business in the Gulf of Mexico, and adds:

"They could secure cargoes especially at this port during this fall in the greatly increased business influenced by the twenty-five and one-half feet of water obtained at this port, which is the natural outlet for 55 per cent. of the cereals produced in the Northwest that have to be exported over consumption. We are the second cotton port of the United States. Our business here makes the following showing of increases over 1895-96: In number of steamers, 55 per cent.; net register tonnage, 68½ per cent.; bales of cotton, 62½ per cent.; bushels of grain, 105 per cent.; tons of oilcake and meal, 53½ per cent., which will be doubled this year from present outlook of crops.

"Of the \$50,000,000 of capital invested in shipping lying idle in winter in the lakes I have always thought a good part might be utilized in the Gulf during the winter, before I thought of the employment of tonnage that will be available caused by the contract mentioned. Pooling of steamship lines with railroads has given us a rail rate by water to New York. What we want is water rates like those on the lakes. Barge lines touching at different points on the Gulf, like the traffic on the lakes, is very much needed and would develop many ports by having a regularity of service to which trunk lines of railroads could furnish a large amount of business."

Mr. Cullum has addressed a letter to the Galveston freight bureau requesting that Commissioner Denison be sent to Washington to look after the interests of this port, in connection with Messrs. Runge, Gresham and Reymershoffer, in the differential case, and that he also be sent to Baltimore, Philadelphia, New York and Boston for the purpose of interviewing importing brokers. It is the intention if possible to induce these brokers to come to Galveston for the purpose of bringing the imports of the Northwest through Galveston instead of through the Atlantic ports. Mr. Cullum has been in correspondence with General Dodge, of the Union Pacific, Denver & Gulf Railroad upon the subject, and has also written Traffic Manager Bartholomew, of the Mallory Steamship Line, and Mr. Dan Ripley, of the Lone Star Steamship Line, asking them to correspond with their Eastern representatives upon the subject.

Such energetic endeavors cannot fail to have an important bearing upon the future of the port which Edward A. Moseley, secretary of the interstate commerce commission, believes "is destined to become one of the great commercial cities of the country."

FOR A NEW YORK EXPOSITION.

Suggestion for an Exploitation of
the South at the Metropolis.

On the 1st of June, 1881, the writer went to Atlanta, a city of which he had read much, but of which he had no personal knowledge. Some of his friends were taking a very active part in the preparations its enterprising citizens were making for their cotton exposition. This was the suggestion of Edward Atkinson, of Boston, a gentleman of broad patriotic views, who had visited that city the year before and addressed its Chamber of Commerce, and later had suggested that Atlanta would be the place in which to hold a cotton exposition, and, incidentally, exhibit something of the known natural resources of that section. His suggestion was published generally by the influential Southern press with favoring and appreciative comments, and then the subject was dropped. Two young editors of a textile paper in Philadelphia read that communication, discussed it for several weeks, and finally concluded to go to Atlanta, talk it over with the leading business men there and see if they could not be induced to undertake the enterprise. They secured the co-operation of such men as Governor Brown, Mayor Crane, Henry W. Grady, Hon. Sam Inman, the great cotton merchant; H. I. Kimball, one of the most ardent promoters of Southern progress of that day; Robert J. Lowry, then a young banker, but now well known by all the leading bankers of the country, and several score more of the most noted and enterprising business men of the city, and the result was that Atlanta's citizens determined to hold an exposition and to make it a success. The president of the company was Governor Brown; the treasurer was Samuel Inman; the director-general was H. I. Kimball; the man who did the heavy work of getting up the schedules and all other matters of publicity for the benefit of merchants and manufacturers was Gen. John R. Lewis, and among the directors were ex-Governor Bullock, George W. Adair and many another citizen of repute.

It was a bold undertaking, but the more Atlanta's people thought it over the more enthusiastic they became and the more determined to succeed.

Of all engaged in this work, Mr. Kimball was the leader. He planned a long way beyond what his associates thought wise, but he had excellent reasons for every new proposition he submitted to the directors, and as a rule they consented.

One of these that he had in mind when he consented to accept the place of director-general was to open up early in June a correspondence with leading officials of the most important Southern railroads, to see if those corporations could not be persuaded to gather from the respective territories traversed by their lines whatever was possible to get together in the limited time at their disposal—all possible exhibits of the agricultural products, the forests, the mines, the building stones and valuable clays, the ores and minerals, and the products of such mills and factories as were in operation. Among those best informed the idea took. Many important suggestions were made by Colonel Pope and Major McPhail, of the then Richmond & Danville; by Col. J. B. Killebrew, of Tennessee; by Col.

B. W. Wrenn, of the Western & Atlantic, and by others. Finally, during the last week of July a two days' meeting of representatives of most of the Southern roads was held at Atlanta, and the matter was debated with much vigor, the majority being opposed to any action because they thought they could not make a creditable show. At the second day's meeting one official said that he understood the North would send down a very large number of fine exhibits that would make those of the South, aside from cotton, as insignificant as the light of a rush candle would be in contrast with a full power electric arc light. Colonel Killebrew replied with much warmth that if his road had only a rush light to show it would put it forth for all it was worth, but it could do better than that, and he ran off a very long list of things produced by nature or by man's industry that astonished most of his hearers. He was followed by Major McPhail, who said he was instructed to vote for an exhibit, and also to give notice that the Richmond & Danville would send from its owned and leased lines a collection that would open the eyes of the South and North alike to the immense opportunities for development in the several States from Virginia to Alabama. That settled the question. The roads all agreed to exhibit, and their representatives went home and commenced the liveliest kind of specimen collecting that section had ever known. They had but a few days more than two months in which to gather their large arrays of materials and get them to Atlanta, but with hosts of station and road agents, and as many extra employees as were needed, they got together displays that not only astonished the people of other sections, but opened the eyes of the intelligent people of the South to the vast stores of natural wealth within their borders. The great newspapers exploited the show as no exhibition had ever been. And from that year of 1881 began the development, which, in spite of long periods of depression, has made the Southern States richer than they ever were before, and has pointed out to the people of this country and to the capitalists of foreign lands the magnificent opportunities for developing great industries.

The point I wish to make is that that exposition, those that have since been held in the same city, in New Orleans, Richmond, Augusta and Raleigh, and the one now in progress in Nashville, have been, as the last will be, eye-openers to people engaged in all kinds of industries or looking for safe and profitable investments of capital. But while this is true, the South has never yet done the thing it ought to do, and that is, to combine in an exposition of all its resources, advantages, opportunities and progress in every line of industry, education and art, in New York city. The South needs to exhibit itself by itself at the metropolis to which hundreds of thousands from all parts of the country are going every week, and which all foreign capitalists make their chief stopping place. In that city are 60,000 or more Southern-born men and women whose influence would be exerted in favor of such an exposition. Neither the Southerners now living at the metropolis nor any other of its citizens will ever initiate such a movement, but let Southern men engaged in great home industries induce their States to take up the matter, and enlist their railroads, their city and town corporations and their most energetic newspapers in this subject, and the thing can be accomplished. And such an exposition in New York, by running six months, would take to the South more settlers of the best kind, more new industries, more

capital, more of the energetic and enterprising spirit of the North, than all the expositions, the railroad and State publications and the land and other property sellers have induced to go there from 1865 to the present day. B. S. PARDEE.

Literary Notes.

Anthropology for the People. A Refutation of the Theory of the Adamic Origin of All Races. By Caucasian. Publishers: The Everett Wadley Co., Richmond, Va.

This work, which must command the attention of the social philosopher, is intended to arouse interest in what the author regards as serious evils. He is convinced of the evil tendency of many theories generally prevailing concerning the origin of races and their relations to each other, and regarding as a degrading error "that all races of men were alike created in God's image and constitute one brotherhood, capable of attaining the same intellectual and moral level," he warns against a disregard and obliteration of all racial diversities. It is hardly necessary for him to state that he has a long and intimate knowledge of the negro race, both as slaves and freemen, and that many of his utterances are based upon his own observation. Nor can the candid reader accuse him of hostility to the negro. He builds up his argument upon a carefully-selected and well-arranged series of theories dealing with anthropology in general, monogeny, polygeny and evolution, and statements of science dealing with the skull, the hair, color, language, permanency of type, similarity of races and hybridity. He discusses the chronology of the Bible, the deluge, and gathers his conclusions into two chapters, "Christianity and the Non-Adamite" and "Importance of Correct Views of Anthropology." His inferences are that the Bible deals only with the Adamic race, that the unity theory, or monogeny, is unreasonable and inconsistent with the word of God, and that "Adam's race is the only one with the highest attributes of manhood and the only race created in the divine image and born to the Christian dispensation, and hence to impose on others the same civilization and mental and moral training is injurious to them and to the general welfare and is a plain perverting of the provisions of Providence." Those persons who are acquainted with the ante-bellum writings of Nott, Cartwright and Fitzhugh may readily comprehend the trend of this volume. It is, however, of value to the sociologist, because of its array of facts and deductions from extensive reading and deep thought. Should its inferences be generally accepted the minds of many conscientious thinkers would be relieved of a heavy burden and the strain upon the moral nature of the white race, due to a conflict between natural instincts and what is considered under generally accepted opinions as a duty, would be diminished. At the same time it must be remembered that much of the progress in some directions made by the negro as a freeman has been in spite of misdirected efforts in his behalf and not because of them, and it is a question whether he would not be actually happier if he had been protected after his change of status from those influences which attempted to deal with him from the standpoint of a misconception of his history and his environments. To meet the results of such influences is apparently the intention of the volume under review, and as a break in what may be held to be the extreme orthodoxy of the negro question it serves a useful purpose, however one's views may differ from its extreme conclusions.

RAILROAD NEWS.

[A complete record of all new railroad building in the South will be found in the Construction Department.]

THE TENNESSEE EXPOSITION.

President Hoffman, of the Seaboard Air Line, Discusses Its Merits.

The Tennessee Centennial Exposition has reached a stage where public opinion is being crystallized as to its merits. There is no question but what it has surprised many, and perhaps the majority of visitors, on account of its magnitude and superior character.

Among those who have had the opportunity to examine the display and form an estimate is President R. C. Hoffman, of the Seaboard Air Line. As Mr. Hoffman is in a position to form an opinion from a conservative standpoint, readers of the Manufacturers' Record will be interested in the view which he has given a representative of this journal. As a whole, he considers the exposition extremely creditable. There is not a feature which, in his estimation, is of an inferior character, and it forms a great object-lesson which every resident of the South should see if possible.

"While I was in Nashville," said Mr. Hoffman, "on special business, I paid a number of visits to the grounds, part of the time in company with President J. W. Thomas, of the Nashville, Chattanooga & St. Louis Railroad Co., who is also at the head of the board of directors of the exposition company. Among the most notable displays, in my opinion, was one of agricultural products, all of which came from a piece of ground containing about twenty-five acres. I believe fifty-two different varieties of fruits, vegetables and cereals were displayed, all of them being raised within the area mentioned. The farmer is a resident along the line of the Nashville, Chattanooga & St. Louis Railroad. The arrangement of the exhibit was very noticeable, and the different fruits, grains and vegetables were of a superior quality. All who saw it must have been impressed with the ability of the Southern farmers to diversify crops and raise products of a high standard.

"The various buildings were well constructed, the Parthenon, which contains the display of fine arts, being of brick, and practically fire-proof. It is intended to keep this as a permanent exposition building if arrangements can be made. I spent some time viewing the collection of paintings and statuary, and must say that, considering the size of the two collections, it far surpassed in quality the art display at the World's Fair. It had evidently been placed in the hands of art critics, and care had been taken in selecting works of quality, consequently the oil, water-color and other pictures were well worth examination, many of them being of a very high standard. The same could also be said of the statuary, and both in sculpture and in painting the collection included some notable French artists. The display of machinery, as well as the contents of the Commerce Building, and, in fact, all of the buildings, were well worth examination, fully up to the standard. One could spend much more time than I did in examining the various collections, and would be fully rewarded for his investigation.

"The amusements also were noteworthy, and it is evident that the management has spared no pains or expenses in providing the best of everything for the public. The pyrotechnic feature was much better than that of Chicago. An excellent musical programme has also

been provided, and the other amusements are on the same order. One evening I should estimate that fully 25,000 people witnessed the display of fireworks, and all were evidently highly pleased with it. The transportation facilities from Nashville to the exposition grounds are admirable, and no difficulty is encountered in handling the crowds of spectators, no matter how large they may be. In a word, on every point is shown the thoroughness of a capable management."

Speaking of the benefits of the exposition to the South, Mr. Hoffman thought that it would be a factor in increasing Southern immigration, and while there is no means of estimating the number of visitors from the different sections of the country, there is reason to believe that the proportion of visitors from the North and West is very large, and that the people from these sections include many farmers and others who may become interested in the Southern States as a result of the Nashville display. He also believes that it will be of much local benefit in developing the business interests of Nashville, and that while it has been a very creditable exposition of what the South produces, it has been especially so as to Tennessee, which has made the most of the enterprise to make public the wide range of its productions.

In Mr. Hoffman's opinion, the exposition is the result of general co-operation, in which Southern cities as well as the people in the smaller towns and most of the railroad companies have joined. While the attendance has been larger than was anticipated by the directors, he believes it will continue in proportion, and that many who have not visited it thus far on account of the season will be present during the fall and up to its close.

Railroads in South Georgia.

The southern portion of Georgia is at present a scene of an unusual amount of activity in railroad promotion and construction. Within the last few months several companies have been formed with a view of building new lines or extending old ones into this section of the State. Among these is the Tifton, Thomasville & Gulf Company, which intends building several extensions to roads already in operation so as to form a line which will have Augusta, Ga., as one terminus, and the other eventually on the Gulf of Mexico. It is proposed to use the Augusta Southern, now in operation between Augusta and Sandersville, Ga., which is part of the South Carolina & Georgia system, as the Augusta end of the line; also the road known as the Oconee & Western Railroad. Another company, called the Augusta Northern & Gulf Railroad, proposes to build between Sylvester and Worth, a distance of about twenty-two miles, which will connect with a road in use for timber purposes, twenty miles long, and owned by the Enterprise Lumber Co. This would bring the new system to a connection with the Georgia & Alabama road at Pitts, Ga.; also to a connection with the Plant system at Tifton, Ga. Still another road, in which Atlanta parties are interested, proposes to build a line from Tifton through Thomasville, which would complete a chain of roads between Augusta and Thomasville.

In addition to these, the Wadley & Mount Vernon Railroad Co., which, as already stated in the Manufacturers' Record, is owned partly by T. J. James, is making arrangements to build an extension of seventy-five miles from Rixville to Fitzgerald. This road is now in operation between Wadley and Rixville; also has a northern connection as far as Louisville, Ga., by the way of Louisville & Wadley Railroad. This extension

will make the total length of the road nearly 100 miles. Still another company proposes completing a railroad from Thomasville to Tifton by the way of Moultrie, Ga. This company is headed by W. W. Ashburn, of Eastman, Ga. If the projects which are now planned are carried out, nearly 150 miles of new railroad line will be built in Southern Georgia during the next year.

In addition to the companies mentioned above, another has been chartered for the purpose of constructing a road in the same section of the State, under the title of the Dooly Southern Railroad Co., which expects to build from Richmond to Irwinville, Ga., a distance of thirty-five miles. A number of the incorporators are members of several of the other companies, including Messrs. George W. Parrott, Jacob Haas, of Atlanta, Ga., and B. P. O'Neal, of Pinia, Ga. The capital stock of this company is placed at \$50,000.

A Statement Verified.

According to a New York financial paper the securities of the Central of Georgia Railway Co. have begun to attain prominence in the market the last few days for the first time since the reorganization was completed. During the first year of the operation of the present company it earned enough in excess of fixed charges to pay $1\frac{1}{2}$ per cent. upon its first incomes, and the indications are that for the fiscal year that will end with this month more than the full interest of 5 per cent. will be shown upon the first incomes. This, it is argued, places the consolidated mortgage 5s in a strong position so far as interest is concerned. As to security, attention is called to the fact that consolidated mortgage is a first lien upon 583 miles of road and also upon 385 miles of leasehold property and a second lien upon the remaining 537 miles of the company's system. The property, as is well known, has been placed in first-class condition physically by the expenditure of about \$2,000,000 during the reorganization.

This statement fully corroborates what was predicted in the Manufacturers' Record at the time of the reorganization of this road. Experienced financiers have regarded the Central of Georgia as one of the best railroad properties in the South, and have claimed that, through mismanagement, it went into the hands of the court and was placed in the condition in which the reorganizers found it. Among the prominent banking houses who have taken this view are Messrs. Wilson, Colston & Co., of Baltimore, who, through the columns of the Manufacturers' Record over two years ago, expressed their conviction as to its earning possibilities. It is very gratifying to note that it has verified these statements and that the railroad is so regarded in New York financial circles. Like the Southern, the Georgia Southern & Florida, the Georgia & Alabama and other lines whose securities have been arranged on an equitable interest basis, the Central shows that as a legitimate railroad investment it has the right to attract the attention of the capitalists both in this country and abroad.

Changes on the Southern.

The Southern Railway Co. has issued circulars announcing a number of changes in divisions and superintendents. They are as follows: Washington division, from Washington to Monroe, Va., including branches, A. Ryder, Charlottesville, superintendent; Norfolk division, from Monroe to Spencer, N. C., with branches to Pinner's Point, Goldsboro, Ashboro and other points in North Caro-

lina, W. J. O'Brien, Greensboro, N. C.; Charlotte division, from Spencer, N. C., to Greenville, S. C., with branches, W. B. Ryder, Charlotte, N. C.; Atlanta division, from Greenville, S. C., to Atlanta, with branches, W. A. Vaughan, Atlanta, Ga.; Birmingham division, from Austell, Ga., to Greenville, Miss., A. J. Frazier, Birmingham, Ala.; Richmond division, from Neapolis to West Point, Va., W. T. West, Richmond, Va.; Nashville division, from Salisbury, N. C., to Morristown, Tenn., W. O. Sprigg, Asheville, N. C.; Columbia division, from Charlotte to Augusta, Ga., also Columbia to Greenville, S. C., and branches, P. Welles, Columbia; Macon division, Atlanta to Brunswick, Ga., W. R. Beauprie, Macon; Aniston division, from Atlanta Junction to Meridian, Miss., A. Gordon Jones, Selma, Ala.; Knoxville division, from Bristol to Chattanooga, Tenn., and branches, F. K. Huger, Knoxville; Louisville division, from Louisville to Lexington, Ky., with branches, G. R. Loyall, Louisville, Ky.

J. A. Dodson has been appointed superintendent of tracks, bridges and buildings, with headquarters at Washington, D. C., and will also be in charge of the maintenance of way between Washington and Atlanta. D. W. Lum, superintendent of tracks and bridges at Atlanta, will be in charge of the maintenance of way of the Atlanta division; also those in Alabama, Georgia, Tennessee and Kentucky.

An Arkansas Project.

According to the statement of Mr. J. M. Parker, president of the Mississippi, Hamburg & Western Railroad Co., work on this line is expected to begin in the near future. In a letter to the Manufacturers' Record, Mr. Parker writes that forty miles of the line will be built first from a point on the Mississippi river to Hamburg, in Ashley county, Arkansas. The company of which he is the head has obtained a land grant from the Arkansas legislature contingent upon the construction of this mileage. Mr. Parker is president of the First National Bank of Cripple Creek, Colo., but will soon be located in Arkansas in charge of this enterprise.

Jacksonville, Tampa & Key West.

According to the annual report of the receiver of the Jacksonville, Tampa & Key West Railroad Co., the net earnings were \$18,968, contrasted with the deficit of the corresponding year of \$5667. The loss on the road for the year was \$29,168, against \$177,442 for the previous year. This loss on the line, it is stated, was caused by the small orange crop. As more groves are coming into bearing, however, and the condition of the country along the line is improving, it is believed that the road will be earning more than its expenses and fixed charges within a short time. According to the receiver's report, the physical condition of the road has not been neglected, and improvements have been made wherever necessary.

To Southern Melon-Growers.

W. N. Mitchell, commercial freight agent of the Baltimore & Ohio, with headquarters at Atlanta, Ga., advises the Manufacturers' Record that he intends giving a prize of \$25 for the largest watermelon grown in the South during the present season. The conditions are these: Any melon-grower who desires to enter the competition must have his melon ready by the 15th of July. He must take it to the depot whence he makes his shipments, and the agent at the depot will certify the weight and telegraph it to the general freight agent of the railroad in

question. Mr. Mitchell will receive these reports, and will select the largest melon from them. It is intended to present the melon to President McKinley. In a statement to a representative of the Manufacturers' Record, Mr. Mitchell says that already a large number of Southern fruit-growers have entered into competition for the prize, and it is believed, as a result, some remarkably fine specimens of this fruit will be produced in the South this year.

Moore County & Western.

In a letter to the Manufacturers' Record Mr. Clark J. Brown, treasurer of the Moore County & Western Railroad Co., writes that the company is preparing to place on the market \$150,000 worth of bonds, which will be used in purchasing the Moore County Railroad now in operation between Aberdeen and Craigownie, N. C. This line will be rebuilt and equipped and extended in the direction of Concord. The company, according to Mr. Brown's statement, is now securing subscriptions to its stock and rights of way. He also states that New York parties will take the remainder of the bond issue at the rate of \$10,000 per mile after the first \$150,000 has been placed. Later the company will be in the market for rails, rolling stock and cars. Sixty-eight-pound rails to the yard will be used.

Pennsylvania's Press Excursion.

The annual excursion of the Pennsylvania Railroad, given to the newspaper men of Washington, Baltimore, Philadelphia and New York, was one of the leading features last week in local railroad circles. With the enterprise characteristic of this corporation a first-class special was placed at the disposal of about 300 journalists and their friends, which left Washington, D. C., on the 25th ult. at 9.30 A. M. in charge of Assistant General Passenger Agent George W. Boyd, Col. Frank N. Barksdale, chief of the advertising department of the road, and Mr. Bernard Courlaender, division passenger agent. The itinerary of the outing embraced a series of festivities at Cape May, the party being the guests of the Stockton Hotel. The excursionists returned to their homes on the 28th ult., after a most enjoyable trip, the details of which were on a much more elaborate scale than on any previous occasion.

New Southern Freight Line.

An important change in the freight transportation service between Philadelphia and the South has been made by a traffic agreement between the Baltimore & Philadelphia Steamboat Co. and the Baltimore Steam Packet Co., by which a through freight line has been formed for handling goods to all points reached by the Seaboard Air Line and its connections. The Baltimore & Philadelphia Steamboat Co. maintains a daily service from New York and Philadelphia to Baltimore by way of the Delaware & Chesapeake canal and Chesapeake bay. The freight will be carried from Baltimore to Portsmouth, Va., the tidewater terminus of the Seaboard Air Line, by steamers of the Old Bay Line, and thence transferred by rail to its destination. The new line will give added facilities to Philadelphia merchants for doing business in the South, and it will doubtless receive a large patronage on account of the shortness of the route and the quick dispatch of freight which it enables.

The Seaboard's Industrial School.

The Seaboard Air Line's "Traveling Industrial School," as it is termed, has started on a trip over the system for the purpose, as already stated in the Manu-

facturers' Record, of giving instruction to farmers as well as residents of towns and cities in the best methods of preserving fruit, vegetables, etc., roadmaking, the preparation of dairy products and in domestic economy generally. The train, which is in charge of John T. Patrick, consists of ten cars, nine of which contain machinery and other apparatus for the purpose of the trip. The cars are arranged so that they can be opened at the sides and converted into a platform for the purpose of displaying the exhibits. Among other articles which are carried are seeds, plows, dairy machinery, fruit-canning machinery, road scrapers and rock crushers. One day is given to each station, and residents of the town are invited to make themselves familiar with the different processes.

Railroad Notes.

H. W. Downey has been appointed passenger and freight agent of the Galveston, Houston & Henderson road at Galveston, Texas.

The Louisville Street Railway Co. has ordered fifty street cars for its service in the city. Cars are thirty-two feet long, and are of the most modern type of construction.

Mr. J. N. Wisner, who has been agent for the Seaboard Air Line, with headquarters at Houston, Texas, has been transferred to Nashville to look after the exposition traffic of the Seaboard.

A dispatch from New Orleans states what is known as the Spanish Fort Railroad has been sold to the New Orleans & Western Railroad Co. This road, which is a suburban line out of New Orleans, will give the New Orleans & Western a direct entrance into the city.

A dispatch from Chattanooga, Tenn., announces that J. Simpson Africa, representing the Union Trust Co., of Philadelphia, has sold the Chattanooga & Lookout Mountain Railroad to the Chattanooga & Lula Lake Railroad Co. This places both the incline railroads between Chattanooga and Lookout mountain in the hands of one company.

The last report issued by the Northern Central Railroad Co. shows some very encouraging figures for the month of May, 1897. The net earnings were \$116,834.21, an increase of over \$22,000 as compared with the corresponding month of last year. The net earnings for the five months ending May 31, this year, shows an increase of about \$152,000 over the corresponding period of 1896.

Visit to Buena Vista.

A large party of Baltimoreans and Washingtonians visited Buena Vista, Md., last Saturday as the guests of the Buena Vista Improvement Co., who own and operate the Buena Vista Hotel and control about 300 acres of land, which are to be laid out for cottage sites.

A more beautiful and desirable mountain site could hardly be imagined, situated on the summit of the Blue Ridge, 1500 feet above the level of the sea, overlooking the panoramic Cumberland valley, whose width is from mountain to mountain, twenty-five miles, and stretches from the Susquehanna to the Potomac, a distance of eighty miles. The view is pleasing and restful.

The air is bracing and dry, conducive to good health and long life. It has long since passed in a proverb that the hardy people of this section live to be ninety years old, after having accumulated \$70,000.

The comforts of the party were very courteously looked after by Mr. J. Brandt, of the improvement company, and Manager Reamer, of the Buena Vista Hotel.

COTTONSEED OIL.

This department is open for the full and free discussion of trade topics and practical questions, and contributions are invited from men who are identified with this industry. Items of news are always acceptable.

The Market for Cottonseed Products.

New York, N. Y., June 29.

There has been no important change in the market for cotton oil since our last, though a shade easier in tone at this writing. Sales have been fairly large with regard to volume, but sellers are accepting propositions which a week ago were declined with reference to summer yellow. The market is decidedly dull, owing to the lack of interest displayed by exporters. With regard to prospective export loading, there is considerable speculation. It is felt that the outlook for very material improvement is promising, inasmuch as stocks abroad are known to be light, especially in France, while the expected upward movement will be hastened probably by the tariff settlement. English oil is quoted at 15s. 3d. to 15s. 9d. for export, firm, which figures may be accepted as being relatively higher than American refined here at 23½ cents. The ruling trade conditions with regard to cotton oil are decidedly at variance with those which were naturally expected, seeing that lard is strong and soap stocks are being purchased freely here and in the West. The fact that large stocks of lard prevail at the leading centres gives color to the statement that the present advance and apparently strong position are not a result of healthful trade conditions, but are due rather to the efforts of holders who have an ulterior object in view. For this reason cotton-oil purchases, with regard to exporters, are light, shippers preferring to await developments, while purchasing barely sufficient for present needs. The volume of oil which has passed to the hands of domestic consumers during the week has been considerable. The reports that, owing to the outlook for a large cotton crop, with correspondingly plentiful and low-priced seed as a sequence, cotton oil of the new crop will be similarly influenced, has proved a further bear factor in connection with present market conditions. For this reason oil is offered from the South somewhat more freely, and at the easier prices referred to. July lard is quoted, Chicago, at 3.90 cents, and September delivery at 4.05 cents. Compound lard is quoted at 3½ to 4 cents, New York make, and 4 to 4½ cents for Western. Tallow is quiet, a reaction having set in from the activity of the previous week, 3½ to 3 3/16 cents being quoted. Crude is dull, but for the higher grades of refined a fair business is reported, chiefly for export at full prices. The meeting of millmen in New Orleans yesterday (28th), for the purpose of discussing the prospects of the market for cottonseed products during the forthcoming season, will doubtless prove helpful in "clearing the air," while leading to a better understanding among the manufacturers. The following are closing prices: Crude, loose, f. o. b. mills, Atlantic coast, 15½ to 16 cents; summer yellow, prime, 23½ to 24 cents; summer, off-grade, 23 to 23½ cents; yellow, butter grades, 27 to 27½ cents; white, prime, 26 cents; winter yellow, 28½ to 29 cents, and soap stock ¼ to ¾c. Receipts for the week aggregate 3250 barrels, inclusive of through shipments.

There is nothing new to report concerning cake and meal. In Great Britain cake is meeting with a readier sale at full prices. Cake is nominally quoted at this market at \$19.50 per ton.

Cottonseed-Oil Notes.

The board of managers of the Joint Traffic Association at New York has decided that hereafter all shipments of cottonseed oil or its products which have been refined or converted at intermediate points in transit shall be charged at the full local rates duly established for such traffic from such intermediate points to final destinations.

The annual meeting of the stockholders of the Marion Oil Mill Co., of Marion, S. C., was held on the 18th ult. A dividend of 8 per cent. was declared, payable July 1. The only change in the board of directors was the substitution of Mr. B. R. Mullins for Mr. Henry Mullins, who declined re-election. The directors elected Mr. H. C. Graham, president; B. R. Mullins, secretary and treasurer, and W. M. Wray, superintendent.

The market for cottonseed products in New Orleans has been quiet during the past week, with a slight inquiry for export. Prices for round lots, both in oil, cake and meal, are steady, with values unchanged. Receivers' prices are as follows: Cottonseed, \$8 per ton of 2000 pounds net to the mills, no commission of any kind to be added; cottonseed meal jobbing per carload at depot, \$18.50 to \$18.75 per short ton of 2000 pounds; for export per long ton of 2240 f. o. b., \$20 to \$20.25; oilcake for export, \$20 to \$20.25 per long ton f. o. b.; crude cottonseed oil at wholesale or for shipment, strictly prime in barrels per gallon, 17 to 17½ cents; loose, per gallon, 15½ to 16 cents, according to location of mill; refined cottonseed oil, prime in barrels per gallon at wholesale or for shipment, 22½ cents; cottonseed hulls delivered per 100 pounds, according to location of mill, 10 to 15 cents; linters, according to style and staple—A, 3¼ cents; B, 3½ cents; C, 2½ to 3 cents; ashes, none.

Textile Notes.

The Abbeville Cotton Mills Co., of Abbeville, S. C., has obtained authority to increase its capital stock from \$200,000 to \$300,000.

There is a movement on foot at Aberdeen, N. C., for the erection of a cotton mill, and Mr. J. W. Graham is said to be interested.

The Tryon Hosiery Co., Lynn, N. C., has started up its knitting mill of ten machines, and intends to add forty more machines during the year.

The directors of the Augusta Factory, of Augusta, Ga., met last week and declared a dividend of 2 per cent. The addition of a new water-wheel is talked of and estimates will be made.

A report from Charlotte, N. C., states that Mr. Joseph Bamford, Jr., of Paterson, N. J., contemplates establishing a large silk factory in the South, and possibly Charlotte may be chosen as the location.

The Eno Cotton Mills, of Hillsboro, N. C., intends to install an electric-light plant in its mill, and is now investigating electric lighting and obtaining estimates. Thos. H. Webb, superintendent, gives this information.

The Stafford-Huguley Hosiery Co., of Barnesville, Ga., will establish a knitting plant. Building will be erected at once and equipped for the manufacture of hosiery. J. H. Huguley is president; Frank M. Stafford, secretary-treasurer, and E. E. Bloodsworth, superintendent.

It is stated that the Reliance Lumber Co., of Beaumont, Texas, had an inquiry last week for 50,000 yellow-pine doors for export.

LUMBER.

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

LUMBER MARKET REVIEWS.

Baltimore.

Office Manufacturers' Record, Baltimore, Md., July 1.

As usual at this period of the season, a quiet market may be expected, and the week under review has been characterized by midsummer dullness. The movement in all wood products has been limited, and sales generally light, while box-makers, yardmen and planing mills are only purchasing to supply immediate wants. Receipts of all kinds of lumber are light, and stocks on hand at the moment are quite sufficient for the present demand. In air-dried yellow pine there is very little selling, and during the week boxmakers have been the principal buyers. There is a good inquiry for kiln-dried North Carolina yellow pine, and there is considerable selling, both for home and export. White pine is steady, with a better demand, and prices generally firm for all desirable grades. Cypress is dull, with values nominally steady. In the hardwood market the demand from out-of-town buyers is a shade better, but in a local way the volume of business is light. The export business in hardwoods is remarkably quiet, and shippers are doing very little at present.

The following list represents the prices current at this date:

[The quotations for yellow pine are for cargo lots, and for all hardwoods the figures indicate values for choice car lots.]

VIRGINIA AND NORTH CAROLINA PINE	
5-4x10 No. 2, kiln dried.....	\$12 50@ 13 50
5-4x12 No. 2, kiln dried.....	14 00@ 15 00
4-4x10 No. 1, kiln dried.....	15 00@ 15 50
4-4x12 No. 1, kiln dried.....	15 50@ 16 50
4-4 nar. edge, No. 1, kiln dried.....	13 00@ 14 00
4-4 wide edge No. 1, kiln dr'd.....	17 50@ 18 50
6-4x10 & 12, No. 1, kiln dried.....	23 00@ 24 00
4-4 No. 1 edge floor, air dried.....	13 50@ 14 50
4-4 No. 2 edge floor, air dried.....	10 50@ 11 50
4-4 No. 1 12-in. stock, air dried.....	15 50@ 16 50
4-4 No. 2 12-in. stock.....	12 50@ 13 50
4-4 edge box or rough wide.....	7 50@ 8 50
4-4 edge box do. (ord. widths).....	6 50@ 7 50
4-4 12-in. rough.....	9 00@ 10 00
4 narrow edge.....	5 50@ 6 50
4 wide.....	6 50@ 7 50
4x8, 6 & 10 1/2 inch.....	8 50@ 9 00
Small joists, 2½-12, 14 and 16 long.....	7 50@ 8 50
Large joists, 3-16 long and up.....	8 00@ 9 00
Scantling, 2x3, 2x4 and 3x4.....	7 00@ 8 00

WHITE PINE.

1st and 2d clear, 4-4, 5-4, 6-4 and 8-4.....	\$47 00@ 48 00
3d clear, 4-4, 5-4, 6-4 and 8-4.....	42 00@ 43 00
Good edge culls.....	14 50@ 15 50
Good stock.....	16 50@ 17 50

CYPRESS.

4-4x6, No. 1.....	\$19 50@ 20 50
4-4x6, No. 2.....	13 50@ 14 50
4-4x6, 16 feet, fencing.....	10 00@ 11 00
4-4x6, rough.....	8 50@ 9 00
4-4 rough edge.....	8 00@ 8 50
4-4 edge, No. 1.....	16 00@ 17 00
4-4 edge, No. 2.....	12 00@ 13 00
Gulf, 4-4, Nos. 1 and 2.....	25 00@ 26 50
Gulf, 6-4, Nos. 1 and 2.....	28 00@ 30 00

HARDWOODS—WALNUT.

5-8, Nos. 1 and 2.....	\$65 00@ 75 00
4-4, Nos. 1 and 2.....	80 00@ 90 00
5-4, 6-4 and 8-4.....	85 00@ 95 00
Newell stuff, clear of heart.....	85 00@ 100 00
Culls.....	20 00@ 30 00

OAK.

Cabinet, white and red, Southern, plain-sawn and good, 1 and 2, 8 inches and up, 12 to 16 feet long, 4-4.....	\$30 00@ 34 00
Quartered white, Western, 1 and 2 quality, all figured, 6 inches and up wide, 4-4.....	53 00@ 55 00
Culls.....	10 00@ 15 00

POPLAR.

Nos. 1 and 2, 5-8.....	\$24 50@ 25 50
Nos. 1 and 2, 4-4.....	28 00@ 30 00
Nos. 1 and 2, 6 and 8-4.....	32 50@ 33 50
Culls.....	11 50@ 12 50

SHINGLES.

Cypr., No. 1 h'rts, sawed, 6x20.....	\$6 25@ 7 00
No. 1 saps, sawed, 6x20.....	4 75@ 5 00
No. 1 hearts, shaved, 6x20.....	6 00@ 7 00
No. 1 saps, shaved, 6x20.....	4 75@

LATHS.

White pine.....	\$1 85@ 2 00
Spruce.....	2 00@ 2 10
Cypress.....	1 50@ 1 60

Charleston.

[From our own Correspondent.]

Charleston, S. C., June 28.

There has been some good trading in the local lumber market during the past week and prices are decidedly firmer for all fancy grades of lumber. There is a good local demand from builders and for improvements in various sections of the

city. The reports from all milling points are very favorable, and shipments of all wood products are increasing. The cross-tie and shingle industries are very active at the moment, and there is a good demand from Northern sections. The market generally is improving, and on Saturday at the close prices ranged as follows: Merchantable lumber, \$14 to \$16 for city-sawn, \$12 to \$14 for railroad; square and sound, \$9 to \$13 for railroad, \$8 to \$11 for raft; dock timber, \$4.50 to \$6.50; shipping, \$8.50 to \$10.50. There is a fair stock of shingles, and prices hold steady at \$5 to \$7 per thousand. Among the shipments during the past week the following are reported: Schooners Lida J. Lewis with 432,000 feet of lumber, and Mary Lee Patton with 480,000 feet, both for Baltimore; schooner John L. Treat for New Haven with 398,000 feet; schooner Bessie Whiting for Perth Amboy with 428,000 feet of lumber. New York steamers took out 47,000 feet; steamer Delaware for Boston 269,280 feet. The aggregate shipments from this port to domestic ports from Saturday, September 1, 1896, to June 25, 1897, inclusive, amounts to 53,634,064 feet, against 61,208,502 feet for same period last year. New York steamers took out 56,000 feet. There is a fair demand for handy-sized tonnage, and rates are not materially changed. Rates from this port to New York and Providence on lumber are quoted at \$4.50; Fall River, \$4.50; white ties to Perth Amboy, 15 cents each, basis of 46 feet, and switch ties, \$3.75. Coastwise lumber freights are quiet, with rates unchanged. Among the charters reported are the following: Schooner J. B. Brown, 430 tons, from Charleston to Boston with lumber at \$4.50; a schooner, 518 tons, from Charleston to Boston with cross-ties on private terms, coal out from Philadelphia 75 cents.

Savannah.

[From our own Correspondent.]

Savannah, Ga., June 28.

During the week under review the demand for lumber has held up remarkably well under all conditions, and the market continues fairly active, with values firm. The cross-tie industry is now a very important one in this section of the country, and shipments are liberal. The shingle trade is very active, and several large cargoes have been shipped from Georgetown during the past ten days. Mills are generally very busy, and are well supplied with orders. Shipments of lumber from the nearby ports of Brunswick and Darien are better, and the market steady. At the close of business on Saturday prices ranged as follows: Ordinary sizes, \$11 to \$12; difficult sizes, \$13 to \$18; flooring boards, \$15 to \$22; ship-stuff, \$16.50 to \$20, and sawn ties, \$10. The following vessels cleared from this port during the past week with cargoes of lumber: Schooner Robert Dillon with 285,476 feet of pitch-pine lumber, and schooner Ida E. Latham for New York with 321,566 feet; schooner Rebecca M. Walls for Philadelphia with 408,363 feet of lumber; schooner Hilda for Baltimore with 437,082 feet, and schooner Marjory Brown for Philadelphia with 520,028 feet of lumber and 8647 cross-ties measuring 385,872 feet, the cargo measuring 905,900 feet. New York steamers took out 130,407 feet of lumber and 67,000 shingles. Boston steamers took out 135,571 feet and Baltimore steamers 232,567 feet. Lumber and timber freights continue steady, with rates not materially changed. The rates from this and nearby ports of Georgia are quoted at \$4 to \$4.50 for a range including Baltimore and Portland, Me. Timber rates 50 cents to \$1 higher than lumber. To the West Indies and Windward rates are nominal; to Ro-

sario, \$12 to \$13; to Buenos Ayres or Montevideo, \$10.50 to \$11, and to Rio Janeiro, \$14.

Mobile.

[From our own Correspondent.]
Mobile, Ala., June 28.

In most departments of the lumber and timber industry of this section business continues quite active, and the demand more decided in character, with values a shade firmer. In the lumber trade there has been some good orders filed during the week from South America, and also from Great Britain and the Continent. Timber shippers are quite encouraged by the outlook in Great Britain, and, as stocks are said to be approaching a normal level, by a cautious movement in shipping, prices will hold firm for desirable pitch pine. At adjacent milling centres mills are very busy, and have orders sufficient to keep them cutting right along. Prices for the best grades of yellow pine are very steady, and holders firm in their views, while stocks are by no means large at any one point. Sawn timber is still quoted 10½ cents per cubic foot, 40-foot basis, while hewn timber is firm, with a light supply, at 10 to 12 cents, basis of 100 cubic feet, average B1 good. There is a moderate demand for hewn oak at 18 cents per cubic foot for first-class. Hewn poplar is in limited demand at 12 cents per cubic foot for large average girth. During the past week about 500,000 cubic feet of sawn timber has been shipped to Great Britain, and to other ports about 1,500,000 feet of lumber has gone forward. Among the clearances the following vessels are reported: Bark Due Sorelle for Newcastle with 37,095 cubic feet of sawn timber, 5383 cubic feet of hewn timber and 20,041 superficial feet of lumber; ship Bellevue for Aberdeen with 65,295 cubic feet of sawn timber, 3076 cubic feet of hewn timber and 161,892 feet of lumber; steamer Nyanza for Greenock with 234,752 cubic feet of sawn timber and 161,352 feet of lumber; steamer Royalist for London with 135,834 cubic feet of sawn timber and 550,000 feet of lumber; steamer Bergen for Tampico with 62,199 feet of lumber, and bark Vanadis for Buenos Ayres with 516,952 feet of lumber. The total shipments of lumber from this port from September 1, 1896, to June 25, 1897, aggregate 60,545,442 feet, against 51,542,102 feet for the corresponding period last year. Among the charters last week the following are reported: British steamer Woolwich, 2107 tons, from a Gulf port to London with timber on private terms, August; a British steamer, 1650 tons, from Pensacola to Fecamp with timber at 103/9, July, and the British steamer Henrietta H. with timber from Pensacola at 106/7, July.

St. Louis.

[From our own Correspondent.]
St. Louis, Mo., June 28.

The situation here and at adjacent points in nearly every avenue of the lumber industry is reported satisfactory. Shipments keep up remarkably well and sales are generally good, while there is every indication of a fair trade during July. Crop reports are generally favorable, and farmers being busy at the moment harvesting, there is to be expected a lighter trade for a few weeks. The yellow-pine business has been quite brisk during the month and very few changes in the general tendency of prices. Sales have been liberal; in fact, for the month there has been a larger movement than usual. Receipts of hardwood during the month have been heavy and sales very satisfactory, with stocks considerably reduced, indicating a healthy condition of affairs. The demand for this period of

the season is better than usual, and there is a good country and factory trade at the moment. Wagon woodwork and chair stock is moving freely, but the demand from car factories is not so spirited. There is a good inquiry for quartered white and plain red oak, and all other stock is moving freely. The cottonwood business is also very good, and mills that were interrupted by the late floods are now in a position to operate. There is a fair demand for poplar in wide boards and thick squares, while stocks at the mills are reported in good shape. There is a good inquiry for walnut from Eastern sources and for export, while prices for uppers are firm.

Pensacola's Lumber Trade.

An indication of the magnitude of the shipments and the business that is being done in the export of wood goods at Pensacola, Fla., is the cargo of sawn pitch-pine timber recently loaded there on the steamship Kirriemoor. The cargo consisted of 1364 standards, or more than 2,700,000 superficial feet. The dead weight was 5300 to 5400 tons, based on the usual weight of such wood. The vessel was loaded in eleven and one-half actual loading days. This cargo was the largest of the sort so far shipped from Pensacola, both in number of standards and in proportion to the vessel's tonnage. The carrying trade in steamers for pitch pine from Pensacola and other Gulf ports is assuming large proportions. Since the first of the current year about sixty steamers have cleared with full timber and lumber cargoes from Pensacola alone, all of considerable average size and some very large. This is entirely exclusive of general cargo steamers and large sail tonnage clearances. During the balance of the season it is believed that there will be at least as many more. A number of boats have also been chartered for similar cargoes from Mobile and other ports. The cargo of the Kirriemoor demonstrates that with modern-built boats of good carrying capacity the timber trade should not prove unprofitable where steamers are properly handled at the point of loading.

Lumber Notes.

Cobb's saw mill in Dinwiddie county, Va., was destroyed by fire last week, with a large quantity of lumber. The loss is estimated at about \$3000, with \$500 insurance.

Messrs. Lowder & Co., operating stave mills at Brushart, Grump county, Kentucky, have sold 1,000,000 staves to the Standard Oil Co., including the firm's entire output for the remainder of the year.

The Bancroft Lumber Co., of Orange, Texas, recently started its plant with a schedule that calls for 11,000,000 feet of lumber for export, and has closed contracts with logmen for 13,000,000 feet of pine logs.

Messrs. Landon & Kent, of Charleston, W. Va., who recently put into operation a large molding factory in that city, have located a saw mill near the factory. The plant was started up last week and made a successful run.

Mr. Edward W. Warburton, of Williamsburg, Va., is making large shipments to Northern ports of pine wood and railroad ties. Several cargoes of pine wood left last week, and a contract was closed with a New York company for 10,000 crossies.

The Kansas City & Southern Lumber Co., of Springfield, Mo., which is operating a hardwood mill at Sedgewick, Ark., has recently entered the export trade. The company recently shipped

twenty-five cars of oak to Germany via New Orleans.

With the vessels loading lumber last week at Sabine Pass, Texas, and those to sail this week, the total shipments for June will go above the 10,000,000 feet mark. It is stated that exporters have inquiries for bills aggregating 5,000,000 feet of lumber and timber.

The shipments of pitch pine for the first half of June from the port of Pensacola, Fla., were as follows: Lumber 3,992,000 superficial feet, sawn timber 9,686,000 superficial feet, crossies 561,000 feet and hewn timber 19,199 cubic feet, making a total of 14,469,000 superficial feet.

It is stated that the Hankinson Lumber Co. within the past ninety days has built about \$20,000 worth of houses in Augusta, Ga., and has contracts for about that many more. The company has also signed a contract to furnish material for forty-eight houses to be built at Bath, South Carolina.

The Ryan-Richards Lumber Co.'s mill and planer at Lake Charles was destroyed by fire on the 21st ult. Nearly 3,000,000 feet of lumber was destroyed, and the loss on mill and lumber will be \$25,000, with \$14,000 insurance. The company had leased the plant from J. B. Walkins, the owner.

Advices from Beaumont and Orange, Texas, and Lake Charles, La., for the month of June show a fairly active demand for lumber and timber, both for the home and export trade. The demand from railroads has been active, and the outlook for a continuance of trade from this source is very encouraging.

There was a meeting of lumbermen last week at Orange, Texas. Manufacturers generally reported the condition of trade as satisfactory, a fair volume of orders having been received on the new list. The condition of stocks was discussed, and it was reported that there was no excess. The meeting adjourned to meet at Lake Charles, La., on July 27.

The Parrott Lumber Co. and B. P. O'Neal are the principal stockholders of a new railroad to be built from Pinia to Vienna, a distance of fifteen miles. Mr. O'Neal has a large saw mill at Pinia, and the Parrott Lumber Co. one at Richmond. The two mills have a capacity of 100,000 feet of lumber. The new road will give each of the mills the benefit of competing through lines.

The Ryan-Richard Lumber Co. was organized at Lake Charles, La., on the 26th ult., and will hereafter be known as the Lake City Lumber Co., Limited, with D. W. Ryan, president; C. H. Richard, vice-president, and Charles Fitzend, secretary-treasurer and general manager. The mill, which was recently destroyed by fire, will be rebuilt at once and sawing resumed at an early date.

A Russian barkentine cleared from Fernandina, Fla., on the 19th ult. for Liverpool, England, with a cargo of 431,000 feet of lumber, and the British barkentine Glenafton cleared on the 21st ult. for Port of Spain, Trinidad, with a cargo of 330,000 feet of lumber for N. B. Borden & Co. The schooner James M. Seaman also cleared for Boston, Mass., with 500,000 feet of lumber from Thomas A. Ganse.

Mr. James M. Williams and associates are rapidly pushing to completion their new saw-mill plant at Aquone, N. C. This firm will hereafter be known as the Peerless Lumber Co. The company will soon commence sawing, and their first run will consist of 2,500,000 feet of lumber, consisting of 1,000,000 feet of poplar, 1,000,000 feet of oak, ash and chestnut and 500,000 feet of cherry. It is the

purpose of the company to put in a dry-kiln and soon have lumber ready for market.

The chief of the forestry division at Washington, D. C., reports that the present great cut of white pine cannot continue more than six or seven years longer. Since 1873 the States of Wisconsin, Michigan and Minnesota have furnished 154,000,000,000 feet, board measure, and \$3,000,000,000 shingles, the whole country furnishing in the past year 200,000,000,000 feet of white pine. The wood-pulp trade consumes 800,000,000 feet yearly of pine spruce and hemlock. The estimated standing stumpage is now 100,000,000,000 feet of Northern pine, or about half of what has been consumed since 1879. Canada has about 40,000,000,000 feet of standing pine, which is now being cut at the rate of 2,000,000,000 feet a year.

MINERALS OF GEORGIA.

Deposits of Value South of Atlanta-- The Gold Mines.

[Special Cor. Manufacturers' Record.]

Atlanta, Ga., June 29.

I have just returned from the prospecting trip in the interest of some gentlemen who are capitalists from New York, who want to find an outlet for a commodity of a commercial value which will pay them interest on the investments in the South.

The first trip I made was south of this place. I was told to examine the country in 150 miles of this city to see what I could find in clay deposits, their character as to fitness for the manufacture of fine wares, and to note all other minerals of a commercial value.

After I got out I was surprised at the knowledge people in the country had so quickly gained within the past year of minerals. They quickly told me and went with me to show me what they call chalk beds, and I could not convince them that it was not chalk. Not to make this too long, I will tell you that I found the richest and largest deposit of kaolin, and some of it very pure, and will compare very favorably with any German clay imported to this country, and it is near railroad lines and can be easily mined, washed and shipped. There is no necessity for us to send abroad for this material when we have it here.

I also found large deposits of asbestos, some of it very good and pure, but of short fibre, which, if manufactured, will make fine paper, and can be got out as cheaply as wood pulp. I also found fuller's earth, graphite, not very pure, and, strange to say, found 100 miles south of here a large deposit of iron ore, not magnetic, but chromate, with rich pyrites all through it. The most curious formation I found was a white-clay formation in a tract of ten acres of land. This clay is pure white and hard, and is found in a succession of mounds like ant-hills from ten to fifteen feet high, and can be taken out in boulders. There is an old log cabin on the place which has a chimney built out of this clay, the bricks of which I was told by an old settler had been under the heat for sixty-five years. This ends my discovery south of here. It looks like the big wave rolled things about in very promiscuous manner, and we don't know yet what will be discovered in the next few years.

Gold is now being found in the following counties of Georgia: Lumpkin, White, Hall—the county where two good diamonds have been found—Hart, Milton, Cherokee, Cobb, Marietta, McDuffie, Douglass, and even our own county here, Fulton, and the gold fever is again beginning to run high in old Georgia. G.

MECHANICAL.**Automatic Gaining Machine.**

Woodworking machinery of latest improved designs, for hub, spoke, wheel, bending, carriage, wagon, plow handle, brush handle, shaft, pole, patent hoop and furniture factories and planing mills,

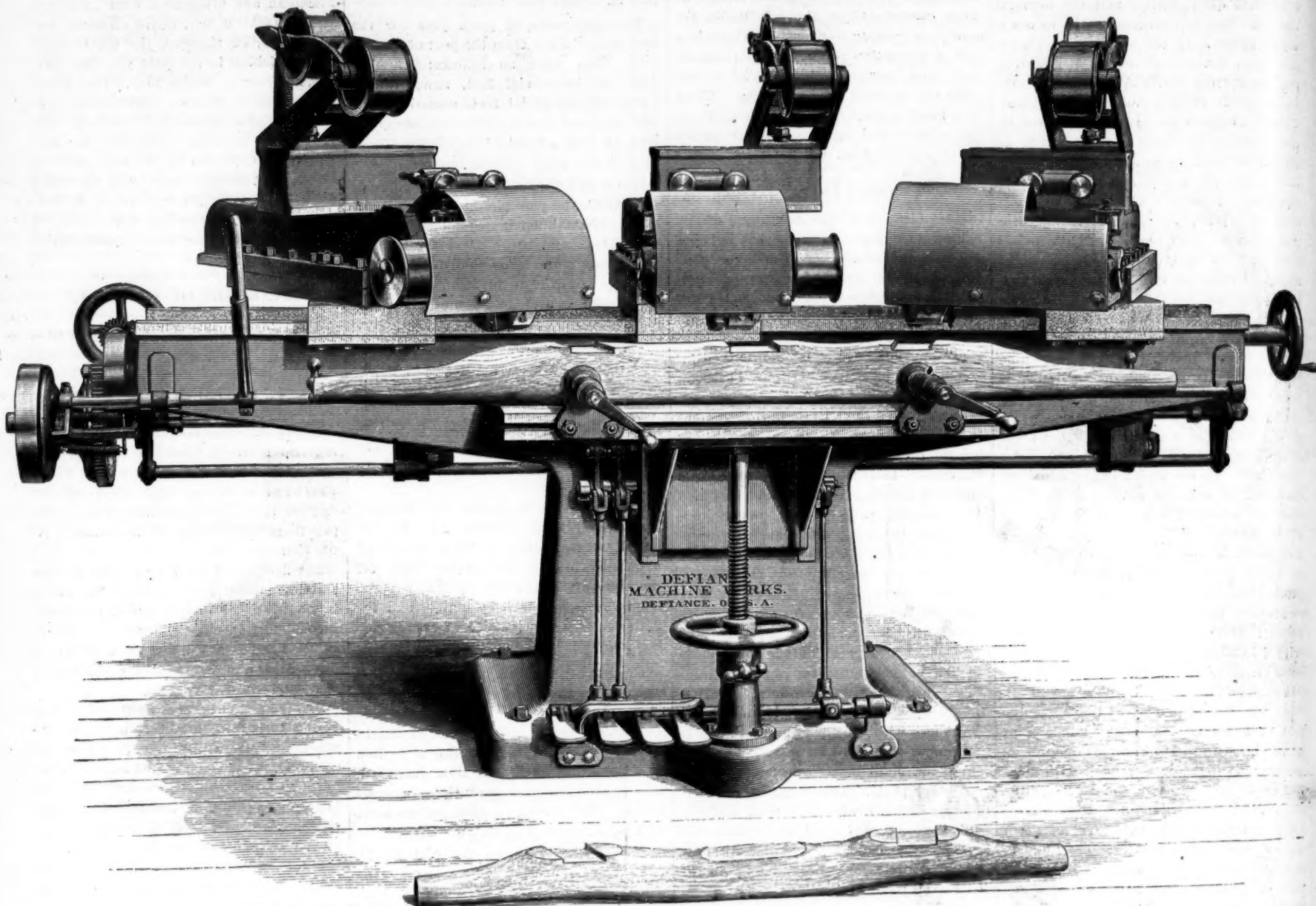
furnished with a novel device, by which the surface of a warped board may be faithfully followed in cutting gains or dados in wide, uneven lumber, thus making it possible to effect an accurate gauge for the depth of the cut. In gaining heavy timber or wagon or carriage gearing, this device serves to lock the head-stock in a rigid position, gauging the cut

from the bottom of the stick. Each head-stock is furnished with the means to gauge its respective depth of cut without reference to the other heads or to the height of the table.

An attachment, not shown in the engraving, is furnished to accurately centre and securely hold a wagon axle lengthwise with reference to its skeins.

Special attention is called to the large and heavy frame or bed of the machine. By this design, to which the maker has given more than usual care, all tendency to twist or spring the bed out of alignment is defeated, and an easy, uncramped movement of the working parts secured.

The tight and loose pulleys on the counter are twelve inches diameter by



PATENT THREE-HEAD AUTOMATIC GAINING MACHINE.

is the product of the Defiance Machine Works, of Defiance, Ohio.

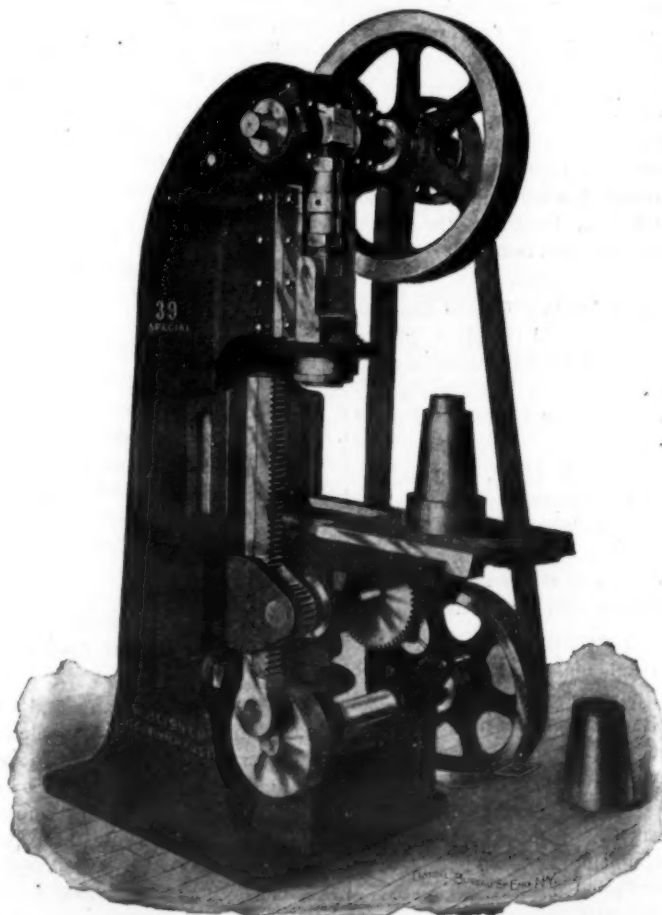
The engraving represents a patent three-head automatic gaining machine made by this company, which is calculated to supply a demand long unsatisfied, for the gaining of all kinds of wagon gearing and a large variety of light and heavy framing.

The frame is very substantial; it is cast in one piece, with cored centre; the top is planed true and accurately fitted for the support of the carriages, which are gibbed to it and adjustable to or from each other by separate hand-wheels, accommodating an adjustment sufficient to cut gains up to seven feet apart.

The upper portion of each carriage is adjustable on a turntable base so as to admit of being set at any angle desired for the purpose of cutting angle gains.

The transversely sliding rams, by which the cutterheads are carried, may be brought forward to the work separately or simultaneously by the use of the foot pedals at the base of the machine, according to the desire of the operator. The amount of travel to the rams may be governed instantly from one inch to twenty-four inches, and they are provided with a quick return movement after completing their work.

Cutterheads can be furnished to cut any required width or depth. Each head-stock by which the cutterhead is held is



NEW BLISS WIRING PRESS.

six-inch face, and should run 550 turns a minute.

Weight of machine complete is 5000 pounds; total floor space occupied is five feet by eight feet six inches.

For further particulars address the maker as above.

New Bliss Wiring Press.

The machine we illustrate has recently been built by the E. W. Bliss Co., 137 Plymouth street, Brooklyn, N. Y. This machine is so designed as to expedite and facilitate the operating of wiring dies for coffee pots, measures, pails, buckets, etc. The sliding plate is automatically actuated so as to dispense with the fatigue and loss of time involved in pulling it to and fro by hand. This construction also obviates the risk of accidents caused by the punch coming down on the die before it has been returned to its proper position. The mechanical principle of operating this slide plate will be readily understood from the illustration. With this automatic device an experienced operator can feed this machine at a rate of about twenty pieces per minute, which is claimed to be at least double the number the same man can do with an ordinary wiring press.

The principal dimensions of this machine are as follows: Distance between gibs four and three-quarters inches, standard stroke of slide two inches, max-

imum stroke of slide three inches, weight of balance wheel 250 pounds, and a total weight of about 2500 pounds. The height to the centre of the shaft is sixty-four inches, and the floor space occupied is 33x24 inches. The press will horn up to fourteen inches in length, wire up to (diameter and depth) 11x11 inches and will cut up to seven inches in diameter.

The E. W. Bliss Co. will be pleased to communicate further with anyone desiring further particulars regarding the above press.

New 37-Inch-Wheel Band Saw.

This is a newly-designed machine, having all the adjustments and attachments

of the saw and pressure on the guides. The shafts are steel, large in diameter and run in long bearings, lined with the best of Babbitt metal.

The table is iron, 34x31 inches, planed perfectly true, and can be adjusted to saw beveling. The guide bar is steel, made perfectly square and counterbalanced for convenience in adjusting and to prevent accident by falling when loosened. It has the spring tension to compensate for the expansion or contraction of the blades, as the maker has found this device to be more satisfactory than weights and levers.

Wright's patent roller guide is furnished on this machine.

This cock was designed with the idea of giving the consumer a cheap cock that could be easily repaired under full pressure of steam. This gauge cock has two rubber strips, forming valve seats. When one is worn out, release thumb nut at the end of the ball and reverse ball to the other seat and tighten thumb nut.



THE ROSS REVERSIBLE BALL-GAUGE COCK.

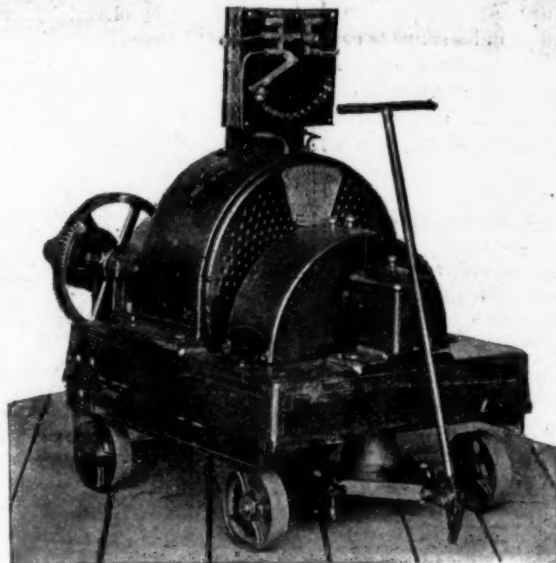
The worn-out rubber can then be taken out and a new one replaced ready for use. This cock is one of the specialties manufactured by the Lehigh Valley Brass Works, South Bethlehem, Pa. It also manufactures a full line of heavy globe valves, cocks, Ross straightway valves, giving special attention to quality and workmanship.

Card Portable Motor.

In large machine shops, structural iron works and other places where drilling or light boring has to be done on heavy material, time can be saved by the use of a

obstruct the flow. It is the custom with many careful engineers at the beginning of the season when the valve is no longer needed to entirely remove the interior parts. Another serious objection is the disagreeable pounding of the valve on its seat, due to pulsations of the exhaust. To overcome this many designs, using springs, levers, balanced valves, etc., have been brought out, all of which require more or less attention and often fail to work properly.

The cut clearly shows the construction and interior arrangement of the Excelsior back-pressure valve, which is now



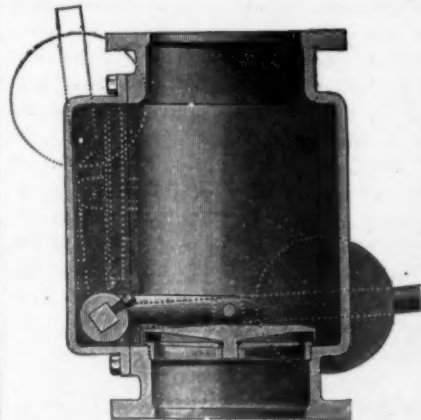
CARD PORTABLE MOTOR.

motor suitably mounted for easy transfer from place to place. The frequent calls for such a tool has caused the Card Electric Co., of Mansfield, Ohio, to introduce the mounted motor illustrated. All the working parts of the motor are enclosed as a protection against accidents from dirt or the careless handling of material about it. The cone pulley shaft is driven from the armature shaft by gearing, and the ratio of the gears are such that the cone pulley is made to run as near 200 revolutions per minute as possible. On the armature shaft is a small pulley, which can be used for driving high-speed machinery direct. The starting rheostat is non-combustible, and has a double-pole switch mounted on it, and as all the connections to the motor are made before shipment from the factory, nothing has to be done to put the motor in operation but connect the line wires to it. These mounted motors are manufactured by the Card Electric Co. in sizes from two to twelve horse-power, inclusive, and purchasers are furnished a list of gears from which they can select a pair to give the cone pulley a speed suitable for their requirements.

Straightway Back-Pressure Valve.

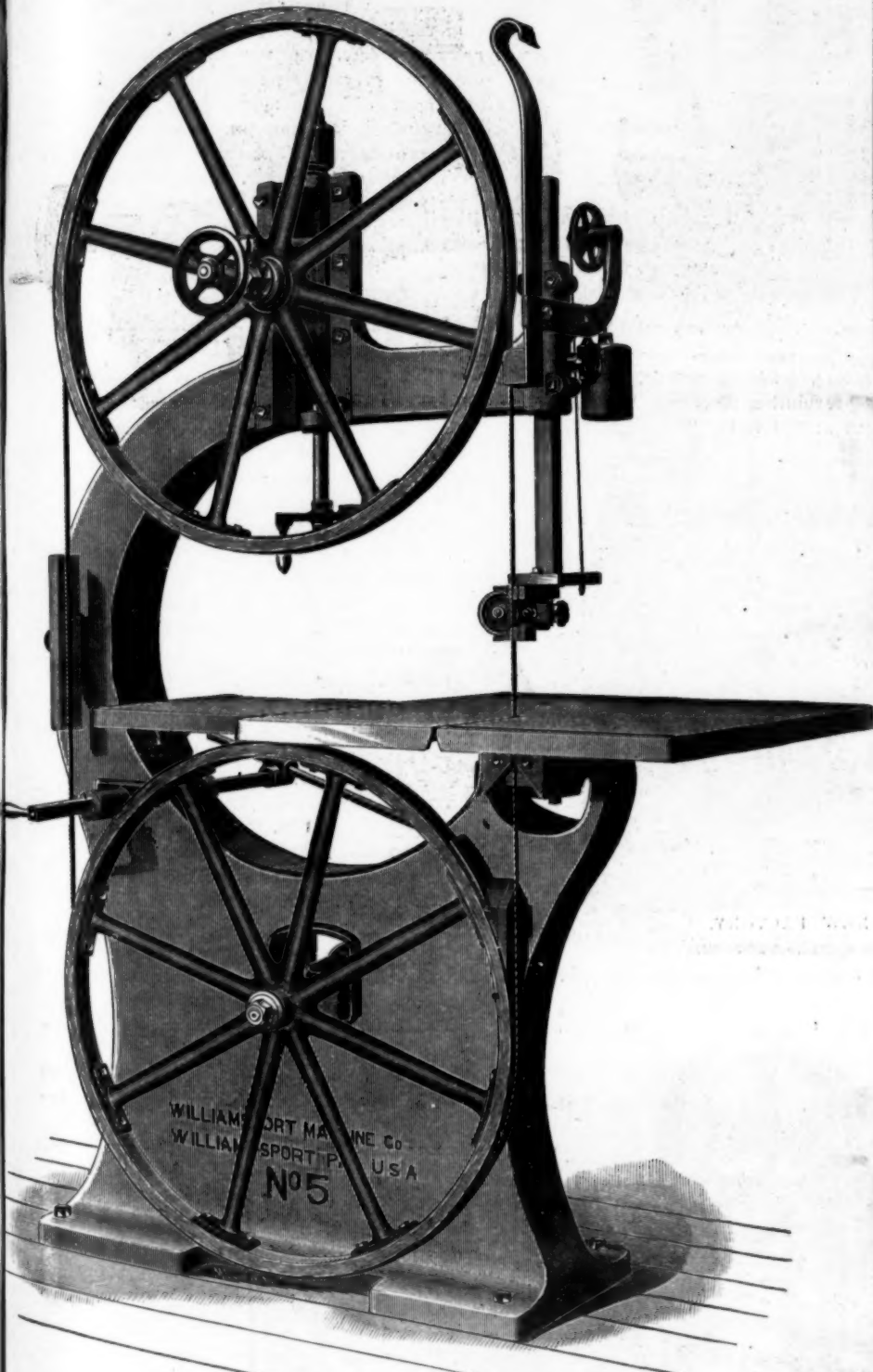
One of the necessary evils attendant upon the use of exhaust steam on heating systems is the use of a back-pressure valve. Anything that offers the slightest

being manufactured and put on the market by the firm of Jenkins Bros., which they say fully meets the requirements of an ideal valve. It not only has the fewest possible parts and is entirely free from complication, but when not in service the valve and all interior parts can be quickly thrown back into the cover,



EXCELSIOR STRAIGHTWAY BACK-PRESSURE VALVE.

where it is entirely out of the exhaust passage and offers not the slightest obstruction, but leaves a full, free, straight passage, and consequently requires no further attention. The seat is broad and flat, and as the valve contains the Jenkins disc, it is perfectly noiseless when in service, never sticks and gives long service. The cover can be easily and quickly



NEW 37-INCH-WHEEL BAND SAW.

necessary on a first-class machine of this kind. The frame is hollow and cast solid in one piece, carefully designed with reference to strength and weight. The base is much larger than many other makes of machine of similar kind. The wheels are thirty-seven inches in diameter and two-inch face, and are made with iron centres and spokes and wood rims, which make a far better wheel in every respect than solid iron. The covering on the wheels is made of the best of rubber and the surface turned perfectly true. The top wheel is hung in a swinging frame, and can be adjusted by the hand-wheel shown in the cut at centre of wheel, when machine is in motion, for regulating the path

The machine will take in fifteen inches under the guide and thirty-five inches between the saw and frame. The tight and loose pulleys are 14x4½ inches and should run 500 revolutions per minute. Floor space required, 18x41 inches.

The maker furnishes with every machine one one-half-inch blade, scarfing frame, soldering tongs, belt shifter, ripping guide and set of wrenches.

For further information address the maker, the Williamsport Machine Co., of Williamsport, Pa.

The Ross Reversible Ball-Gauge Cock.

The accompanying illustration represents the Ross reversible ball-gauge cock.

removed, bringing with it the whole interior parts for examination or repair if necessary. As a relief valve or free exhaust valve for a condensing engine this

show a general view of the new factory and the dynamo-room, with two 100-kilowatt, 250-volt General Electric dynamos in view. The entire steam-engine plant

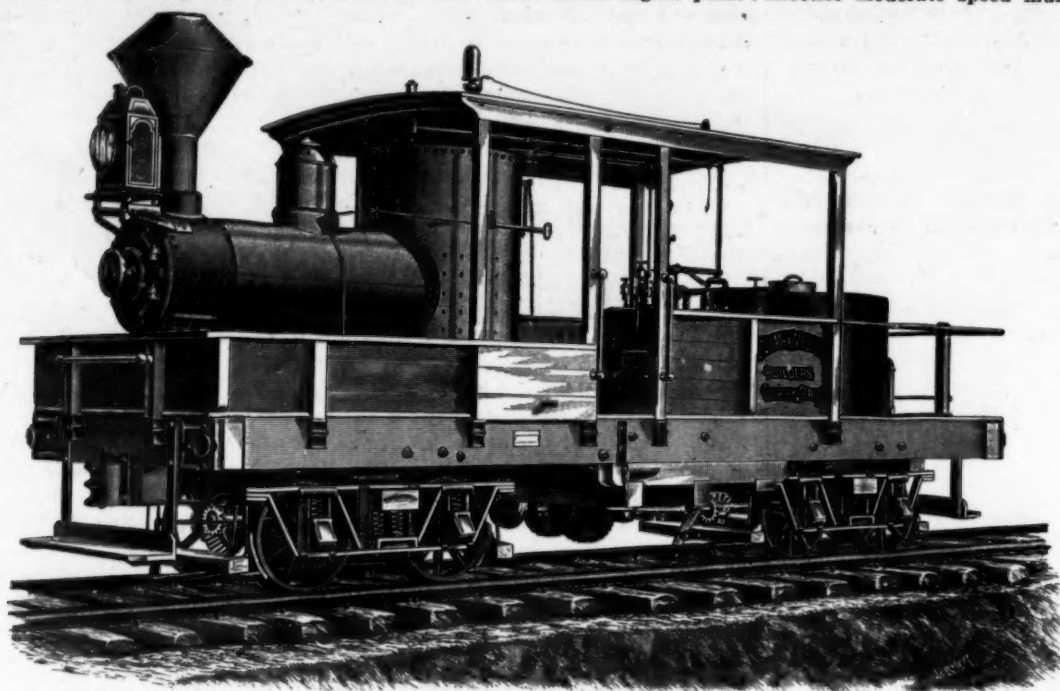
roll cut-off couplings, by means of which either or both of the generators may be driven. To it are belted two General Electric moderate speed multipolar gen-

placed on the core, are bound down solidly at both ends on cylindrical flange extensions of the spider. The bending of the armature coils is thus avoided, and they can be removed and replaced easily and speedily. The insulation used is similar to that employed in the General Electric Co.'s railway motors, and is both tough and impervious to moisture. The brushes are of carbon, set in specially-constructed holders to give proper contact on the commutator. All the bearings are of the Hyatt roller type.

The blue Vermont marble switchboard is composed of five panels. The centre panel carries a voltmeter and voltmeter switch and twelve knife switches, six for the lighting feeders and six for the power feeders. The two panels on each side are generator panels, and each is equipped with ammeter, main switch, field switch, rheostat, pilot lamp and a General Electric automatic magnetic blow-out circuit-breaker. The two outside panels carry four switches, on the right panel two for lighting and two for power in the case factory, on the left panel two for lighting and two for power in the plating department. All the switches are of the General Electric quick-break, single-pole pattern.

The leads from the generators are carried to the switchboard beneath the floor. From the switchboard the feeder circuits rise to the ceiling of the engine-room, and, carried on porcelain insulators, in lines as straight as possible, pass to the various points of utilization in the factory. In all passageways on the floor of the engine-room corrugated rubber is laid down, and all the machinery, both steam and electrical, is surrounded by polished brass railings.

The motor equipment consists of 3 I. B. motors, 2 pole, 3 horse-power, 1800 revolutions; 2 I. B. motors, 2 pole, 5 horse-power, 1700 revolutions; 1 M. P. motor, 4 pole, 8 horse-power, 1600 revolutions; 4 M. P. motors, 4 pole, 10 horse-power, 1350 revolutions; 3 M. P. motors, 4 pole, 15 horse-power, 1200 revolutions; 1 M. P. motor, 4 pole, 20 horse-power, 1050 revolutions; 2 M. P. motors, 4 pole, 30 horse-power, 975 revolutions; 1 M. P. motor, 4 pole, 50 horse-power, 850 revolutions, allotted to the different departments, and each equipped with incombustible starting rheostats, with automatic switch.



TRAMWAY LOCOMOTIVE.

valve will especially commend itself to engineers. It can be placed and used in any position, and from its shape is especially adapted for use in corners or close to a wall. Further particulars will be cheerfully furnished by the manufacturers, Jenkins Bros., 71 John street, New York city.

Tramway Locomotive.

This tramway locomotive is claimed to have a great advantage in having two speeds or powers. There are a pair of steel gears on the engine shaft corresponding with a pair on the line shaft, and to which a lever is attached, enabling the engineer to quickly double the power when desired to pull over steep grades, and likewise to increase the speed from slow to fast over level parts of the road. It enables the engine to haul the heavy loads over steep grades that are pulled on the level in the fast speed, and saves time and trouble of doubling the hills, as would otherwise be necessary to handle heavy trains. Each wheel is a direct and positive drive, and the springs over the axles, in addition to those in the sand boards, make it very flexible and easy upon the rail, and is especially adapted to work upon wooden rails. The boiler is a rapid steamer, and is adapted for both wood and coal. It is equipped with steam brake on each wheel, steam syphon, headlight, lubricator, two injectors, sand box rear and front, and all fittings and tools for its successful operation.

The Climax Manufacturing Co., of Corry, Pa., builder of this machine, is selling a good many of them, having orders ahead for three, besides orders for two like the cut in the advertising department of this journal. For any particulars desired write the maker as noted.

Electric Plant for Silverware Factory

Messrs. Tiffany & Co., the well-known jewelers and silverware manufacturers, have recently completed a large new factory at Forest Hill, N. J. The buildings are fully equipped with an electric plant installed by the General Electric Co., of New York city, and the apparatus is of the most modern and improved designs.

Our article is limited to the electric-drive installation, and the illustrations

is confined to one room. The power is distributed by electricity over a two-wire, 250-volt, direct-current system, carefully

erators, each four-pole, 100-kilowatt, 750-revolution machines, delivering current at 250 volts. These generators are

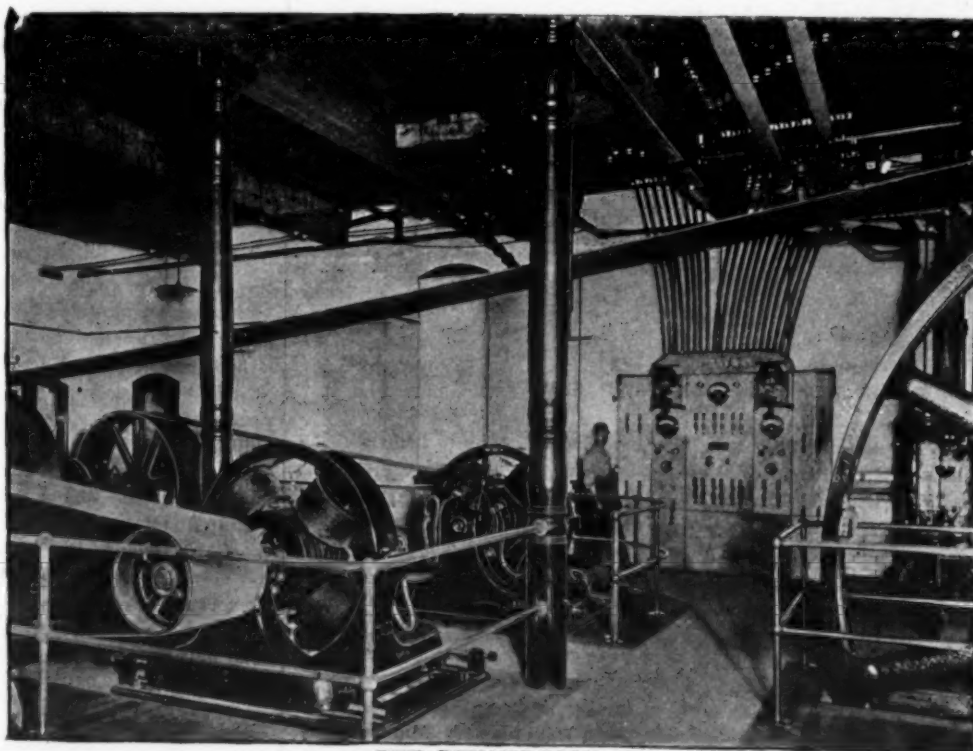


GENERAL VIEW OF NEW FACTORY.

laid out and as carefully executed.

Standing beside the main engine is a Pohle air lift, drawing the water from the

of a type which has recently come into extended use. The frames and pole pieces are of special soft steel. The



THE DYNAMO-ROOM.

artesian well, and a steam pump forcing it into the tank on the corner tower.

The countershaft is equipped with Wor-

armatures, provided with air ducts, are thoroughly ventilated, and the coils of copper wire, made on forms before being

A more complete description of the entire plant is of great interest, but limited space prevents us going further.

PHOSPHATES.

Phosphate Markets.

Office Manufacturers' Record,
Baltimore, Md., July 1.

The local market is quiet, with no special feature to note. The movement is light, and manufacturers are not purchasing heavily. Advices from points of production are generally encouraging, and the work of development in all the phosphate fields is of a more vigorous character. The market in Charleston, S. C., for rock is reported nominally steady, with values as follows: Crude rock at the mines, \$3; hot-air-dried, \$3.25 f. o. b. vessel in Ashley river and \$3.45 f. o. b. city; ground rock in bulk, \$5.50 f. o. b. vessel at city. In Florida the market is firm, and holders are not disposed to sell except at outside figures. Tennessee phosphate is now quoted here at 7½ cents per unit delivered, and advices from the mining sections of that State are more satisfactory. The shipments from the Mt. Pleasant field will be quite liberal for June. During the past week there were no charters to load phosphate rock reported in this market, and in New York there were only two reported, the condition of which were unknown.

Fertilizer Ingredients.

At the moment the general market for ammoniates is active, with values firm and hardening. Messrs. Thos. H. White & Co., in their circular for June, say: "Since early in June the Western market for the higher grades of ammoniates has been very active, and, under a large general inquiry from Southern buyers, at times excited. Prices have rapidly advanced. The Eastern markets by comparison quiet, not being altogether dependent for their supplies upon the Western product. Garbage tankage seems abundant, and is offering at low prices. Dry fish is also upon the market at equal to \$1.45 to \$1.50 per unit f. o. b. factory, and \$1.55 to \$1.60 delivered Baltimore and Norfolk. We quote ground blood \$1.52½ to \$1.55 f. o. b. Chicago; concentrated tankage, \$1.35 Chicago, and hoof meal, \$1.35 Chicago; crushed tankage 10 and 10, \$14.50; 9½ and 18, \$14; 9½ and 5, \$13.50, and 8½ and 20, \$12." Foreign sulphate of ammonia, \$2.15 c. i. f.

The following table represents the prices current at this date:

Sulphate of ammonia (gas)	\$2 15 @	—
Nitrate of soda	1 75 @	1 80
Blood	1 80 @	—
Hoof meal	1 65 @	—
Azotine (beef)	1 65 @	—
Azotine (pork)	1 65 @	—
Tankage (concentrated)	1 65 @	—
Tankage (9 and 20)	1 60 @	10
Tankage (7 and 30)	14 00 @	15 00
Fish (dry)	17 50 @	18 00
Fish (acid)	10 00 @	—

Phosphate and Fertilizer Notes.

The British steamship Caxo sailed from Fernandina last week with 2300 tons of phosphate rock for Certe, France, for the Dutton Phosphate Co.

The British steamship Coxa, from Fernandina, Fla., arrived at Brunswick, Ga., last week from Fernandina, Fla., to load a cargo of phosphate rock.

The Florida Phosphate & Mining Co., of Phoenix, Fla., has closed down temporarily on account of the recent heavy rains filling the pits with water.

The Southern Phosphate Co., of Macon, Ga., has just completed the new buildings started recently, and now has doubly increased the capacity of its plant.

The British steamship Dora cleared last week from Savannah, Ga., for Rotterdam. Her cargo consisted of 800 tons of phosphate rock, loaded at Savannah, and 2350 tons taken on board at Fernandina, Fla.

It is stated that phosphate mines will

be opened at Park Station, near South Berton, Tenn., at an early day. Several tracts of land have been leased, one of which consisting of 260 acres, which is said to have valuable phosphate deposits. Machinery will be put in at once and the work of development commenced.

Iron Markets.

Cincinnati, Ohio, June 26.

The evidences of restoration of confidence are to be found on every hand. The frugality practiced by many manufacturers through the protracted period of depression kept afloat many industries that have already become staunch under the strengthening influences of the improvement in trade, and the merchants who have been exercising prudent policies are rewarded in being prepared to participate in the revival so manifest everywhere.

The marked decrease in financial embarrassment is the best proof of the decided betterment in conditions. Values have sunk to so low a plane that it is believed by many that the volume of general business today is as great as in 1892.

This healthful recuperation has developed in spite of the baneful influences of long-drawn-out tariff discussion and enormous importations of foreign products to the extent of \$100,000,000 per month, displacing very considerable quantities of American-manufactured articles. Fortunately, the expansion of our exports is neutralizing the serious effect such large importations would have had two or three years ago.

The sales of pig iron the past week have been very numerous, embracing nearly every variety of domestic production. The market on Southern iron has strengthened each day, and the demand for soft grades has exceeded the supply, leading to advanced prices on Nos. 1 and 2 soft. Northern irons have toned up, but not in full accord with the Southern. The foreign demand for Southern irons, which keeps up well, imparts tonic to the Southern market.

We quote for cash f. o. b. cars Cincinnati:

Southern coke No. 1 foundry	— @	\$9 75
Southern coke No. 2 foundry	— @	9 00
Southern coke No. 3 foundry	— @	8 75
Southern coke, gray forge	— @	8 50
Southern coke, mottled	— @	9 50
Southern coke No. 1 soft	— @	9 50
Southern coke No. 2 soft	— @	9 00
Belfont coke No. 1, Lake Sup.	11 00 @	11 25
Belfont coke No. 2, Lake Sup.	10 50 @	10 75
Hanging Rock charcoal No. 1	14 50 @	15 50
Tennessee charcoal No. 1	12 50 @	13 00
Jackson Co. silvery No. 1	12 50 @	13 00
Standard Georgia car-wheel	14 25 @	15 00
Tennessee car-wheel	13 00 @	14 00

New York, N. Y., June 26.

The pig-iron market has broadened rapidly since last report. Transactions in foundry irons have been the largest for any like period in many years. The furnaces are very loth to mark up prices, but the buyers are doing that for them. There are indications that it was not in the programme at either the Northern or Southern great centres of production to have any advance in prices this month prior to general wage adjustments July 1. Whether the markets will get away from the leading strings remains to be seen.

There has been considerable buying for investment account, both West and East, but the newspaper accounts of the same have been grossly inaccurate. Most of the trade papers and many of the public press have commented upon a sale of 100,000 tons of Southern iron to Russell Sage. Mr. Sage has not bought a ton of Southern or any other iron, nor has any other Wall-street operator made iron purchases as far as known. The investment buying, as far as it has gone, has been confined almost entirely to the makers or consumers of pig iron, who are well acquainted with the conditions and prospects of the trade.

The general report of foundries and mills is of enlarged business, but there are exceptions to the rule. Money continues easy at the centres, and there is rather more disposition to lend it in ordinary manufacturing and commercial lines.

We quote for cash f. o. b. docks or cars New York:

No. 1 X standard Alabama	— @	\$10 75
No. 2 X standard Alabama	— @	10 00
No. 1 X Lake ore coke iron	— @	12 50
No. 2 X Lake ore coke iron	— @	12 00
Niagara coke malleable	— @	12 00
Standard Georgia charcoal	— @	15 50

Philadelphia, Pa., June 26.

The sales this week of mill and foundry iron have been heavier than usual. Several orders have been placed for 500 to 1000-ton lots of mill iron, and large contracts have been made for chilled basic pig iron. With the exception of Lake Superior charcoal, the prices of all kinds of pig iron are ruling firmer and higher. The demand is good for coke malleable iron.

We quote for cash f. o. b. Philadelphia:

No. 1 X standard Alabama	— @	\$10 75
No. 2 X standard Alabama	— @	10 00
No. 1 X lake ore iron	— @	12 50
No. 2 X lake ore iron	— @	12 00
Niagara low sulphur coke malleable	— @	12 00
Georgia warm-blast C. C. for car wheels, chilled and sand mills	— @	15 50

ROGERS, BROWN & CO.

Cotton and Iron Shipments.

As considerable interest has been aroused as to the best quality of freight to ship with cotton to foreign ports in order to properly load vessels, the following letter from Mr. Frank C. Shepard, general freight agent of the Louisville & Nashville at Montgomery, Ala., to the Manufacturers' Record will be of interest:

"Pig iron in connection with cotton is a very desirable cargo for a steamer whenever the iron is able to pay a high enough ocean rate to warrant the steamers handling it. It takes little room, makes good ballast; but, on the other hand, the expense of handling the iron in loading and discharging, both here and in Europe, is heavy. The low rates, however, on pig-iron shipments make the vessels very reluctant to take it except when grain is not available. The grains exported through the Gulf ports are exclusively corn and wheat. Both being heavy grains, are never exported in connection with pig iron on same steamers. So far as mixed cargoes of pig iron and cotton are concerned, it depends entirely upon the construction of the steamer to determine how much pig iron and cotton can be loaded together. A modern-built vessel, say of 2500 tons net register, should load 2500 to 3000 tons of pig iron and about 8000 bales of cotton."

The Baltimore, Chesapeake & Atlantic Railroad Co. has issued a summer book, which describes the towns along its railroad and steamship routes and the attractions they offer to parties who desire to spend a portion of the summer months in this locality. The company has a railroad and steamer line from Baltimore to Ocean City, the principal seaside resort in Maryland.

TRADE LITERATURE.

We are in receipt of the Wool Record (the only national wool organ), devoted to the various branches of the wool industry. The publication is issued from the Wool Exchange Building, New York city, by A. W. Lightbourn, editor and publisher. Subscription price is \$2 per annum.

In Vermont—"Northern Vermont" is the title of one of the "Picturesque New England" series. It is intended to advertise the beauties of the resorts among the famous Green mountains. The book contains descriptions, accompanied by a large number of half-tone pictures. Mailed to any address by sending a two-cent stamp to the passen-

ger department, Boston & Maine Railroad, Boston, Mass.

Worthington Condensers.—A new catalogue descriptive of the three types of Worthington condensers—jet, surface, self-cooling—has been issued by the manufacturer, Henry R. Worthington, of New York city. Special attention is called to the illustrations and summary of the twin cylinder and vertical machine, and the condenser with triple expansion steam end. Attention is also called to the self-cooling condenser.

New Mining Laws.—We are in receipt of the "Directory of Mines" for May, 1897, published by the Mining Record, Limited Liability, P. O. Drawer 57, Victoria, B. C. The book contains a complete synopsis of the mining laws of British Columbia, with amendments passed at the late session of the legislature, carefully compiled by Archer Martin, barrister-at-law, Victoria, B. C. In addition to the above, much useful information relating to the mines and mining generally is included. The book sells for 50 cents.

Summer Excursions.—The book of summer excursions for 1897, issued by the Fitchburg Railroad, contains valuable information for seekers of summer recreation, with its names of hotels and boarding places throughout New England, the Adirondacks, Catskills and Canada, with rates of board and the price of tickets from Boston or other central points. The book is beautifully illustrated by half-tone plates from photographs, and contains an especially clear map of New England. Address Passenger Department, Boston, Mass.

Implement Catalogue, etc.—The new catalogue, No. 30, of Messrs. F. E. Myers & Bro., of Ashland, O., supersedes all others until further notice. The lists have been reduced and arranged so that one discount applies to all, and the descriptions and illustrations of the pumps and hay tools which the firm manufactures will be found arranged in a concise and convenient form and covering a broad range of product. Well pumps, tank pumps, spray pumps, wind-mill pumps, hay carriers, forks, pulleys, etc., are shown in variety.

Pocket Edition.—A pocket edition of the 400-page catalogue of the Buffalo Forge Co., of Buffalo, N. Y., has been issued. This little volume illustrates and describes the Buffalo horizontal and upright steam engines, mechanical draft systems, machine tools, forges, blowers, etc., manufactured by the company, and any engineer can obtain a copy of it by addressing the company at Broadway and Mortimer street. A large edition has been printed. The book contains a large number of table pages of valuable data never heretofore published.

Summer Resorts.—"Summer Resorts and Tours" is one of a series of pamphlets issued by the passenger department of the Boston & Maine Railroad, Boston, Mass. The book contains over seventy-five pages of information concerning summer life at the White Mountains, Mt. Desert, the New Hampshire and Maine lakes, and the resorts along the New England coast, from Boston to Nova Scotia, with routes, hotel and boarding-house rates, etc.; also contains excellent maps of the New England country. Send a two-cent stamp to the passenger department and the book will be furnished.

Cotton Machinery.—The great strides of the cotton-manufacturing industry in this country, especially in the South, during the last decade, makes of especial interest the new catalogue of the Pettie Machine Works, of Newton Upper Falls, Mass. This company's book contains a complete description and a number of half-tone illustrations relative to cotton machinery, with special reference to revolving flat cards, railway heads, and drawing frames built at its works. This large establishment was started in 1831, and since then has yearly grown in size and renown among the leaders in the manufacture of the equipment to which its attention is given. Send for the new catalogue.

Raleigh, N. C.—This city is situated in the centre of the State on elevated table-land, on the direct line of the Seaboard Air Line Railroad, the Southern Railway and within a few miles of the Atlantic Coast Line system, within fifteen hours of New York. It is one of the most desirable winter homes for Northern and New England health and pleasure seekers, having excellent hotels and private board, with all modern comforts and conveniences, including water works, sewerage, electric and gas lights, electric street cars, telephone and telegraph systems, paved streets, sidewalks, etc. For further description read the brochure now being distributed by the Chamber of Commerce and Industry.

CONSTRUCTION DEPARTMENT.

THE MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the Manufacturers' Record.

It often occurs that the organization of a new company in any town is not known by the postmaster, and hence letters addressed to the company are returned marked "not known." The Manufacturers' Record reports the first organization of all companies, and our readers, in seeking to get into communication with them, should be very careful in deciding how to address them, and even then they must expect the return of some letters, because of the lack of knowledge on the part of postmasters of all new companies. Criticisms and complaints are invited, as they will the better enable us to guard against errors.

ALABAMA.

Birmingham—Steel Plant.—The Birmingham Rolling Mill Co., Jas. G. Caldwell, president, has called a meeting of directors for July 22 to increase capital stock from \$500,000 to \$600,000, to provide funds for doubling the capacity of the steel plant to be completed next month.

ARKANSAS.

Pine Bluff—Electric-light Plant.—The city has concluded to build and operate an electric-light plant for public and private consumption. A \$20,000 plant is suggested. D. C. Bell, chairman of committee, wants correspondence.*

GEORGIA.

Abbeville—Telephone System.—The Abbeville Telephone Co. will extend its system, connecting with several nearby towns.

Atlanta—Paper Mill.—The Atlanta Paper Co. will erect a new factory building four stories high, 150x155 feet, to cost \$30,000.

Augusta—Cotton Mill.—The Augusta Factory contemplates putting in a new water wheel.

Barnesville—Hosiery Mill.—The Stafford-Huguley Hosiery Co. will erect and operate a knitting mill for hosiery. J. H. Huguley is president; Frank Stafford, secretary-treasurer, and E. E. Bloodworth, superintendent.

Nettle—Gold Mining.—The Texas Gold Mining Co. has equipped a boat to dredge the Chattahoochee river for gold.*

KENTUCKY.

Knox County—Coal and Timber Lands.—John C. Mayo, of Paintsville, Ky., and M. H. Houston, of Ashland, Ky., have purchased 20,000 acres of coal and timber lands in Knox county for \$50,000.

Louisville—Distillery.—Wright & Taylor are making improvements to their distillery.

LOUISIANA.

Crowley—Mercantile.—E. H. and Wm. E. McFarland have incorporated the E. E. Ellis

Hardware Co., with capital stock of \$10,000, for mercantile purposes, etc.

Crowley—Paper Mill.—M. S. Kennedy, of Sugarland, Texas, has been investigating in Crowley with a view to the establishment of a paper mill. A mill of ten tons capacity, to cost \$100,000, is talked of.

Lake Providence—Oil Mill.—The erection of a cottonseed-oil mill of twenty tons capacity is decided upon. E. J. Hamley can give information.*

New Orleans—Harness Factory.—The Horter-Tertrou Co., Limited, capital stock of \$50,000, has been incorporated to manufacture harness, etc.; John C. Horter, president; Louis P. Williams, vice-president; Raoul Tertrou, treasurer.

New Orleans—Mercantile.—Finlay, Dicks & Co., Limited, have incorporated, capital stock \$200,000, for dealing in various goods, etc.; Geo. A. Williams, secretary.

New Orleans—Telephone System.—It is stated that J. J. Fowler will organize a \$200,000 company to construct and operate a new telephone exchange and system, wires to be laid underground.

Westlake.—The Perkins & Miller Lumber Co. contemplates putting in a sprinkling system.

MARYLAND.

Baltimore—Car-brake Company.—The Beardsley Car Brake Co. has been incorporated, with a capital stock of \$100,000, by Ambrose A. Sweeney, Charles H. Beardsley, Allen G. Williams, Henry C. Bush and James R. Prott. The capital stock is \$100,000.

Cambridge—Gas Plant.—The Cambridge Gas Co., W. J. Hopkins, president, intends to extend its mains, and may possibly change the arrangement of its plant, so that water-gas may be produced.

Cumberland—Paper Mills.—The Piedmont Pulp & Paper Co. is making improvements to its plant, putting in new machinery, etc.

Cumberland—Electric-light Plant.—The city contemplates the erection of an electric-light plant, to be operated in connection with the water works. No definite action has as yet been taken by the city council, but when it does Isaac Hirsh will probably be chairman of committee in charge.

MISSISSIPPI.

Bay St. Louis—Electric-light and Water Works.—Nisbet Wingfield, of Atlanta, Ga., is now at work on the plans, specifications and estimates for the city's proposed water works and electric-light plant.

Columbus—Electric-light Plant.—The Columbus Gas Co. has awarded contract for the erection of a 1200-light incandescent plant.

Columbus—Water Works.—An election will be held July 19 on proposed issuance of \$20,000 bonds for water works. Address the mayor.

Estabuchie—Artesian Well.—The necessity of an artesian well is recognized and efforts will be made to have one drilled. W. C. Hardee can give information.

Scranton—Steam Laundry.—L. E. Cox contemplates the erection of a steam laundry.*

MISSOURI.

Joplin—Lead and Zinc Mines.—Chas. H. Hall, of Ishpeming, Mich., and Wm. D. Rees, of Cleveland, Ohio, have purchased for \$25,000 a 43-acre tract of lead and zinc lands and will develop mines.

Kansas City—Collar-button Company.—S. S. Simpson and others have incorporated the Tib Holding Collar Button Co., with capital stock of \$10,000.

Sedalia—Car Shops, etc.—The Missouri Pacific Railroad will erect an additional building 700x45 feet, with five tracks, etc.; building to be constructed of corrugated iron and cost, with track, \$47,000. About 400 additional mechanics will be employed; S. P. Weller, division master-mechanic.

St. Louis—Electric-light Plant.—Charles Boettcher, of Denver, Col., writes that the Imperial Electric Light, Heat & Power Co. will build, as reported, a new modern station in St. Louis of about 10,000 horse-power. Bryan & Humphrey, of St. Louis, engineers, are now at work on the plans and specifications.

NORTH CAROLINA.

Aberdeen—Cotton Mill.—The establishment of a cotton mill is talked of, and J. W.

Graham is mentioned in connection with the enterprise.

Charlotte—Silk Factory.—It is reported that Joseph Bamford, Jr., of Paterson, N. J., will establish a large silk factory in the South, possibly at Charlotte.

Elizabeth City—Shoe-dressing Factory.—B. F. Gunn will engage in the manufacture of shoe-dressing.

Hillsboro—Electric-light Plant.—The Eno Cotton Mills intends to put in an electric-light plant; Thos. H. Webb, superintendent.*

Monroe—Water Works.—At a meeting of the city council held last week an election was ordered to vote on a proposition for water works. Address the mayor.

Pinehurst—Fruit Evaporator, etc.—Chartered: The Claude Vernet Nursery & Fruit Co., incorporators being R. G. S. McNeill, E. F. Bartram and George C. Lion. Purpose, to operate a distillery and preserve, can or evaporate fruit.

Pynn—Hosiery Mill.—The Tryon Hosiery Co. has started its hosiery mill, equipped with ten machines, and forty more will be added during the year.

Raleigh—Underwear Mills.—Chartered: The Roanoke Underwear Co., by James B. Pugh, Charles Cohen and W. M. Habliston, for the purpose of manufacturing hosiery.

Vilas—Flour Mill.—The Watauga Roller Mill Co., Limited, intends to build a roller flour mill; W. W. Holsclaw, manager.*

Wilmington—Woodworking Factory.—L. A. Weedon, of Fayetteville, N. C., will establish a shuttle-block factory in Wilmington of daily capacity 3000 to 4000 blocks.

SOUTH CAROLINA.

Chester—Laundry.—Chartered: The Chester Steam Laundry Co., capital stock \$2000, by E. C. Stahan and H. B. Howie.

Williston—Water Supply.—The sinking of an artesian well for water supply is talked of. Address the town clerk.

TENNESSEE.

La Follette—Coal and Timber Lands.—The reorganization of the La Follette Coal & Iron Co. provides that the coal and timber lands will be controlled by the Cumberland Coal & Iron Co., Robert P. Clapp, of Boston, Mass., manager, and that full developments of the property will be instituted in the near future.

TEXAS.

Cameron—Artesian Well.—Contract will soon be awarded for the drilling of an artesian well to cost about \$5000. T. A. Robinson can be addressed.

Dallas—Building Company.—Chartered: The American Building Co., capital stock \$25,000, by E. M. Needles, H. F. West and J. W. Hamer, of Philadelphia; A. F. Hardie, of Dallas, and W. E. Brown, of Fort Worth.

Hillsboro—Water Mains.—The city has received \$15,000 on the additional issue of water works bonds and will at once extend the water mains over the entire city. The council has decided that it can cover the entire residence portion of the city and also put in an air-lift pump at the well to increase the flow of water. The extension will amount to six and one-half miles of mains. Address the mayor.

Kenny—Water Works.—The city has awarded contract to Reichardt & Selhorst, of Brenham, for the construction of a water-works system.

Lufkin—Water Works.—The construction of a system of water works is talked of. Address the town clerk.

Nacogdoches—Cotton Compress.—The Nacogdoches Compress & Warehouse Co., recently noted as incorporated, has contracted for an 80-inch Morse press of eighty bales capacity per hour. Capital stock is \$21,000, which will pay for entire plant and grounds. For further information address B. S. Wettermark, secretary.

Sabine Pass—Dock Improvements.—The Sabine Land & Improvement Co. has closed contract for dredging a second slip 1000 feet long by 200 feet wide, with twenty-seven feet depth of water; contract let to Robert Clarke & Co., of Galveston, Texas.

Victoria—Cotton Compress.—It is reported that A. Goldman will erect a compress for cylindrical baling of cotton.

VIRGINIA.

Alexandria—Beef-extract Factory.—The Virginia Beef Extract Co. has awarded con-

tract for the erection of a new factory, four stories high, 56x36 feet.

Alexandria—Liquor Distilling, etc.—Charter granted to the E. E. Downham Co., with capital stock \$25,000; object, to rectify, manufacture, distill and deal in malt and alcoholic liquors. Officers: E. E. Downham, president; Henry A. Downham, secretary; Sarah M. Downham, treasurer; E. Francis Downham, R. F. Downham, E. E. Downham, H. A. Downham and Sarah M. Downham, directors.

Ionia—Planing Mills and Dry-kilns.—B. W. Edwards will rebuild at once his burned planing mills and dry-kilns.

Newport News—Letter-box Factory.—Jas. T. Mayer and John Crossley are erecting a factory for the manufacture of a patent letter box.

Newport News—Report of Ship-building Plant.—Thurlow Cramp, assistant secretary of the Wm. Cramp & Sons Ship & Engine Building Co., of Philadelphia, Pa., writes the Manufacturers' Record there is no truth whatever in the report that their company contemplates establishing a ship plant at Newport News. The company has not and never had, it states, any intention of building a plant in the waters of the Chesapeake.

Norfolk—Land Company.—Chartered: The Metropolitan Land Co., capital stock \$50,000, with John S. Crawford, president.

Norfolk—Cotton Compress.—The Norfolk Warehouse Co. has contracted for the erection of a cotton compress to cost \$40,000.

Portsmouth—Land Company, etc.—Chartered: The Pinner's Point Co., capital stock \$50,000, for purpose of buying and improving land, etc.; A. J. Phillips, president.

Richmond—Land Company.—Chartered: The Powhatan Land & Improvement Co., for purposes of buying, improving and selling lands. The capital stock is \$10,000. Officers: Dr. J. Hall Moore, president; Warner Moore, vice-president; H. L. Cabell, secretary and treasurer.

Roanoke—Iron Furnace, etc.—Robert E. Todd, of New York, has purchased the furnace and rolling-mill property of the Roanoke Iron Co. for \$57,763.84.

WEST VIRGINIA.

Charleston—Chemical Company.—Charter has been issued to the Li Pizo Chemical & Mineral Co., with an authorized capital of \$3,000,000, \$1,000,000 of which is subscribed and \$100,000 paid in. The incorporators are W. L. Voight, C. F. Stager, Geo. W. Sommer, C. H. Sommer and R. M. Thomson, all of Cincinnati, Ohio.

Charlestown—Photo Company.—Chartered: The Photo-Identification Co., by James M. Mason, James M. Mason, Jr., and Cleon Moore, all of Charlestown, and two New York capitalists. The authorized capital is \$100,000.

Dingess—Coal Mines.—A coal-mining company has been organized by J. S. Little, of Cumberland, Md., and others.

Parkersburg—Oil Company.—Chartered: The Tri-State Oil Co., with capital stock of \$100,000. The corporators are S. M. Flanagan, of Butler, Pa.; E. W. Rietter and J. W. Donovan, of Parkersburg; J. D. Adams, of Charleston, and S. E. Leech, of Marietta.

BURNED.

Chattanooga, Tenn.—P. C. Cramer's mattress factory.

New Orleans, La.—The Ernest Rice Mills; loss \$125,000.

Nicholasville, Ky.—The Sparks block; loss \$30,000.

Tweed, Ga.—W. F. Powell's turpentine distillery.

BUILDING NOTES.

Anderson, Texas—Jail.—Plans, specifications and bids will be received by the commissioners' court on July 12 for the erection of a county jail for Grimes county, at Anderson. The maximum cost is not to exceed \$15,000, and the minimum cost is not to be less than \$10,000. Bidders will be required to exhibit to the court samples and models of their system of cell work, which must explain their construction and locking devices. Each bidder will be required to furnish check in amount of \$1000, payable to the order of J. H. Teague, county judge.

Atlanta, Ga.—Apartment House.—Willis F. Denny has completed plans and speci-

cations for the proposed \$75,000 10-story apartment house. Samuel Barnett will erect the building.

Baltimore, Md.—Dwellings.—Joshua D. Taylor will erect thirty-five dwellings; Jas. Young will erect five dwellings; Jas. E. Callis & Bro. will erect twenty-five dwellings; Henry L. Brack will erect sixty-two dwellings; Chas. A. Lipp will erect ten dwellings; John H. Buck will erect twenty-two dwellings; David C. Slonacker will erect thirteen dwellings.

Baltimore, Md.—Dwellings.—Isaac Benesch will erect three-story brick warehouse 30x84 feet; T. Jas. Crowther will erect seven two-story dwellings.

Bamberg, S. C.—Hotel.—J. H. Cope contemplates the erection of a hotel.

Birmingham, Ala.—Office Building.—Contract has been awarded to Evans Bros. for \$10,000 enlargement to the Jefferson County Savings Bank's building; plans by D. A. Helmich.

Camden, S. C.—Store.—J. C. Man will erect a store building.

Catonsville, Md.—Hotel.—Harry M. Davis will rebuild the hotel recently burned.

Corsicana, Texas.—School.—Board of trustees of State Orphans' Home will receive bids until July 3 for erection of two-story brick school building, according to plans and specifications prepared by F. S. Glover, of Houston, Texas. Plans and specifications can be seen at office of Jink Evans, Corsicana, Texas; or architect, Mason Building, Houston, after Friday, June 25.

Daleville, Va.—School.—Irby, Bowers & Co. will erect \$5000 school building after plans by H. H. Huggins, architect, Roanoke, Va.

Denmark, S. C.—Depot.—The South Carolina & Georgia Railroad will build a depot at Denmark; Jos. H. Sands, general manager, Charleston, S. C.

Kansas City, Mo.—Warehouse.—Thos. H. Swope has submitted plans for a two-story brick building, 65x140 feet, to cost \$10,000.

Kansas City, Mo.—Warehouse.—The Armour Packing Co. will erect a hay and grain warehouse 200x240 feet.

Knoxville, Tenn.—Business Building.—E. E. McMillan has given contract to S. A. Garland for the erection of a large business building.

Macon, Ga.—Hotel.—The erection of a hotel costing from \$250,000 to \$350,000 is talked of, and Block Bros. and Henry Horne are said to be interested.

Magnolia, Miss.—Jail, etc.—Proposals will be received until August 2 for remodeling old jail, and also for building new jail, with plans and specifications. For particulars address W. C. Vaught, clerk of court.

Marion, Va.—Bank Building.—The Bank of Marion will erect office building, after plans by H. H. Huggins, of Roanoke; structure to cost \$5250.

Moundsville, W. Va.—Penitentiary Annex. Sealed proposals will be received until July 13 for the erection of stone buildings and iron cells at the West Virginia Penitentiary. In accordance with plans and specifications. Bids will be received as follows: First, for the excavation and stone work for the proposed new building; second, for cells and iron grilles; third, for carpenter work, glazing, roofing and plastering. Contractors can get forms for bids from Franzheim, Gelsey & Faris, architects, Wheeling, W. Va., or from John L. Laughlin, secretary, Moundsville, W. Va.

New Orleans, La.—Dwellings.—Mrs. Louise Poy will erect \$1075 frame cottage; A. F. Kaufman a \$1000 cottage; Elias Partel a row of five cottages to cost \$3900; John Kopp, \$1750 cottage.

Norfolk, Va.—Bank Building.—Contract has been let to Frank R. May, at \$135,000, for the erection of the Citizens' Bank building.

Norfolk, Va.—Warehouses.—The Norfolk Warehouse Co., recently formed, has let contract to J. H. Pierce for erection of warehouses to cost about \$35,000.

Norfolk, Va.—Warehouses.—The Norfolk Warehouse Co., John N. Vaughan, president, has contracted for the erection of thirty warehouses, and contract for wharf building will be awarded next week.

Norfolk, Va.—Office Building.—Frank R. May (Box 451) has contract for the erection of the new Citizens' Bank building, to cost about \$135,000, to be completed by July 1, 1898. Chas. E. Cassell, of Baltimore, Md., prepared the plans.

Roanoke, Va.—H. H. Huggins has prepared plans for stone building, to cost \$8000, for Kirk, Helronious & Brugh.

Roanoke, Va.—H. H. Huggins has made

plans for \$3500 building for W. L. Andrews; C. Markley, contractor.

Roanoke, Va.—H. H. Huggins has made plans for \$5000 building for J. H. Marsteller; Grove & Keffer, contractors.

San Antonio, Texas.—Beer Vaults.—Bids for the construction of the proposed beer vaults for the San Antonio Brewing Association, according to plans and specifications, will be received up to 10 o'clock A. M., Thursday, July 22. For particulars call at office, 215 North Presa street; A. F. Beckmann, superintendent.

Washington, D. C.—Hotel.—The Raleigh Hotel Co. intends to build a large addition to its hotel.

Washington, D. C.—Dwellings.—Mrs. S. H. Wilmot has permit to erect three dwellings to cost \$10,000.

Washington, D. C.—Dwellings.—Geo. S. Cooper has plans for four basement houses, to have all modern improvements, steam heat, etc.; Mr. Cooper has also prepared plans for four-story flat building, to be heated by steam, etc.; Mrs. S. H. Wilmot will erect three dwellings, to cost \$10,500, after plans by B. F. Meyers; Mark Halloran will erect two two-story dwellings to cost \$5000; B. F. Meyers has plans for \$6000 dwelling for Geo. W. Lange; R. E. Nud-daugh will erect four two-story dwellings to cost \$10,000; M. D. Hensley has prepared plans for three-story dwelling to cost \$5000; Frank L. Hanvey will erect a \$12,000 dwelling.

RAILROAD CONSTRUCTION

Railways.

Bainbridge, Ga.—It is announced that the Georgia Pine Railroad Co. has been organized with a view of building a road from Bainbridge, which is located on the Alabama Midland division of the Plant system, to Arlington, on the Central of Georgia system, a distance of thirty miles. It is reported that enough rails have been purchased to lay ten miles of the line. J. B. Williams, of Savannah, Ga., is president of the company; A. L. Haines, of Bainbridge, Ga., vice-president; H. J. Bruton, of Bainbridge, Ga., secretary, and G. W. Haupt, of Savannah, Ga., treasurer.

Bryan, Texas.—J. W. Howell, one of the promoters of the railroad line between Bryan and Stone City, advises the Manufacturers' Record that nothing definite has been done as yet. The people of Bryan would be pleased to correspond with anyone who desires to take up the project.

Canton, Texas.—A company, termed the Van Zandt Railroad Co., has been formed at Canton, with \$20,000 capital, to build a branch line from a point on the Texas & Pacific road, a distance of ten miles. E. L. Richardson, D. F. Clark and F. A. Bevans are among those interested.

Carrabelle, Fla.—It is reported that twenty-two miles of the Florida Western have been graded and that tracklaying is to begin in September. It is also understood that this company has secured the uncompleted Tallahassee Southeastern Railroad and will build it between Tallahassee and Gainesville, Fla. R. L. Bennett, of Tallahassee, is president of the Florida Western.

Coleman, Texas.—The business men of Coleman and Cisco, Texas, may form a company to build a railroad line between the two towns to connect with the Texas & Pacific system. Among those interested are B. F. Rose, J. P. Morris and W. B. McClellan.

Concord, N. C.—C. J. Brown, treasurer of the Moore County & Western Railroad Co., advises the Manufacturers' Record that construction work has not yet begun, but the company expects to push it as rapidly as possible after beginning. It intends reconstructing the present Moore County Railroad, and is securing subscriptions from towns along the line, also right of way. Mr. Brown may be addressed at Roseland, N. C.

Crest View, Fla.—W. B. Wright & Co., of Pensacola, Fla., have nearly completed a road between Crest View and Florela, Ala., a distance of thirty miles. It traverses Covington county, Ala.

Crest View, Fla.—The railroad line in operation between Crest View, Fla., and Florela, Ala., is controlled by the Yellow River Railroad Co., in which the W. B. Wright Co., of Pensacola, Fla., is one of the largest stockholders. W. B. Wright advises the Manufacturers' Record that the total length of this line, with branches, is thirty-one miles and that it is standard gauge. A charter has been obtained in Alabama to extend the line from Florela to Elba. The extension is to be about thirty-one miles through Covington and Coffee counties. The Ala-

bama extension is to be called the Florida, Alabama & Northern Railroad.

Elba, Ala.—Construction work has begun upon the branch of the Plant system between Elba and Newton, Ala., already referred to in the Manufacturers' Record. B. Dunham, general superintendent of the Plant system, Savannah, Ga., may be addressed.

Elba, Ala.—W. H. Parrish, president of the South Alabama & Gulf Railroad, advises the Manufacturers' Record that this line is projected from Selma to Pensacola, Fla., with a branch from the main line joining the Plant system at Dothen. Mr. Parrish states that contracts have been let and work is to begin in the near future along the line from Dothen to Elba, a distance of about forty miles. Stock subscriptions are also being secured for the balance of the line. It is expected that Greenville will be one of the points reached during the present year. Mr. Parrish may be addressed at Richmond, Va.

El Paso, Texas.—It is reported that a railroad company recently formed may construct a bridge across the Rio Grande river for railroad purposes. J. P. Ramsey, general manager of the company, may be addressed. The same company proposes building a terminal line in the suburbs about three miles long to reach the bridge.

Fayetteville, W. Va.—The New River & Virginia Railroad Co. has been formed, with \$25,000 capital, to build a line in Fayette and Mercer counties. Among those interested are Morris Harvey, of Fayetteville, and G. W. Jones, of Red Star, W. Va. [This, it is believed, is the same company which has been promoting a railroad under the title of the Red Star Railroad Co., recently referred to in the Manufacturers' Record.—Ed.]

Fort White, Fla.—It is reported that work has begun upon the Fort White Southern Railroad, and about three miles of the line have been graded so far. The company expects to extend the line twenty miles. F. W. Pitts is president of the company.

Florence, Ala.—A correspondent of the Manufacturers' Record confirms the report that the scheme of building the Florence Northern Railroad, in Tennessee, has been revived, and that options have been secured on property. As yet no names have been mentioned in connection with the deal.

Galveston, Texas.—The Toledo Construction Co. advises the Manufacturers' Record that it has recently closed contracts for seventy-five miles of railroad construction in the State of Texas and that this work will be sublet. Contractors and others may address the company at 305 Spitzer Building, Toledo, Ohio.

Hamburg, Ark.—President J. M. Parker, of the Mississippi, Hamburg & Western Railroad Co., advises the Manufacturers' Record that forty miles of this line will be built first, extending from a point on the Mississippi river to Hamburg, in Ashley county. Contractors and others may address him at present care First National Bank, Cripple Creek, Col. The company expects to negotiate a bond issue in the near future, and will also be in position soon to purchase rails and equipment for the line.

Hot Springs, Ark.—John G. Lonsdale, receiver of the Little Rock, Hot Springs & Texas line, advises the Manufacturers' Record that this road is now graded from Benton to Hot Springs, a distance of twenty-two miles, and five miles of track completed. The receiver will negotiate the sale of receiver's certificates, and will let the work to contractors. He may be addressed as above.

Little Rock, Ark.—E. P. Ladd, president of the Noble Lake Railway, advises the Manufacturers' Record that this road will be four miles in length and standard gauge. It will be laid with 35-pound rails, and will be used for lumbering purposes.

Mocksville, N. C.—Vice-President Frank S. Gannon, of the Southern Railway Co., advises the Manufacturers' Record that this company is now investigating the feasibility of building the proposed branch between Mocksville and Mooresville. Engineers are now making surveys of the route.

Montgomery, Ala.—The work of grading the Montgomery, Tuscaloosa & Memphis division of the Mobile & Ohio at the Montgomery end has begun. The Hanover Construction Co. is general contractor for the work.

Nashville, Tenn.—The sale of the Tennessee Central road to the syndicate represented by Hon. Jere Baxter has been confirmed by the court. It is reported that the line is to be completed to Nashville as soon as possible.

New Orleans, La.—It is stated that the New Orleans & Western Railroad Co. has purchased what is known as the Spanish Fort Railroad in the suburbs and will relay

it with heavier rails and make other improvements. W. C. Dotterer, at New Orleans, is vice-president.

Norfolk, Va.—It is reported that Hon. M. H. Lane, of Kalamazoo, Mich., is promoting the scheme of building the Belt Railroad line from the Norfolk & Western Railroad depot to the warehouses to be erected by the Norfolk Warehouse Co. in the suburbs. The line may also be extended to Sewell's Point.

Richmond, Ga.—The Dooly Southern Railroad Co. has been chartered, with George W. Parrott, Jacob Haas, of Atlanta, Ga., and B. P. O'Neal, of Pinola, Ga., and others, to build a line from Richmond to Irwinstown, Ga., a distance of thirty-five miles.

Suffolk, Va.—It is reported that surveys are being made for the extension of the Suffolk & Carolina Railroad from its present terminus to Edenton, N. C. The extension will be about seventeen miles long and will be from Ryland Station to Edenton. W. H. Bosley, corner North and Fayette streets, Baltimore, is president of the company.

Vienna, Ga.—It is reported that the Parrott Lumber Co. is interested in the proposed railroad line from Vienna to Pinola, Ga., a distance of about fifteen miles. The road will be built for the purpose of developing the timber lands in that section of the State. B. F. O'Neal, of Pinola, Ga., is reported as being interested in the scheme.

Washington, D. C.—A bill has been placed before Congress to authorize the Falls Church & Potomac Railway Co. to extend its line into the District of Columbia from a point near the Arlington estate. The plan includes the use of a ferry-boat to transfer cars across the Potomac river. [This is believed to be a part of the Washington, Arlington & Falls Church system, of which R. H. Phillips, of Washington, is manager.—Ed.]

Worth, Ga.—T. Tipton, one of the directors of the railroad company which proposes to build the Sylvester & Worth Railroad line, advises the Manufacturers' Record that the road will be about twenty-two miles long and will connect with a railroad line now operated by the Enterprise Lumber Co., making the total length of the combined roads forty-two miles. It will reach the Georgia & Alabama system at Pitts, Ga. Mr. Tipton may be addressed at Isabella, Ga.

Street Railways.

Chattanooga, Tenn.—A portion of the trolley system of the Chattanooga Electric Railway Co. is to be improved and repaired in different ways. A portion of the overhead work will be rebuilt and a part of the mileage relaid. J. H. Warner is president of the company.

Washington, D. C.—It is reported that the Georgetown & Tenallytown Electric Railroad Co. will rebalast its line; also improve it in other ways. J. Hite Miller has been elected vice-president of the company.

Machinery, Proposals and Supplies Wanted.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The MANUFACTURERS' RECORD has received during the week the following particulars as to machinery that is wanted.

Baling Press.—The Eno Cotton Mills, Thos. H. Webb, superintendent, Hillsboro, N. C., wants to buy a press for baling yarns.

Bridge.—The Richmond, Gayton & Southside Railroad Co. is in the market for about 900 feet of through bridge in from four to six spans, to stand strain of 300 tons per 250 feet. Address Ware B. Gay, president, Richmond, Va.

Building Materials.—See "Roofing."

Cogwheels.—J. M. Brock, Grafton, W. Va., wants to buy some small, light cogwheels, straight and beveled, either iron or brass.

Compress.—See "Baling Press."

Cotton-mill Machinery.—H. N. Price, 412 N. Eighth street, Richmond, Va., wants to correspond with manufacturers of weavers' shuttles, bobbins, etc.

Cotton Ties, etc.—W. H. Overman & Co., Salisbury, N. C., want addresses of manufacturers of cotton ties and bagging.

Crusher.—S. M. Bauer, 228 W. Main street,

Louisville, Ky., wants a small second-hand rock crusher.

Dredging.—U. S. Engineer Office, 601 Eighteenth street N. W., Washington, D. C.—Sealed proposals for dredging in Occoquan, Aquia, Nomini and Lower Machodoc creeks, Virginia, will be received here until July 20. Information furnished on application; Chas. J. Allen, lieut.-col. engineers.

Dredging.—U. S. Engineer Office, 601 Eighteenth street, Washington, D. C.—Sealed proposals for dredging in Mattaponi and Pamunky rivers, Virginia, will be received until July 24. Information furnished on application; Chas. J. Allen, lieut.-col. engineers.

Electrical Work.—Bids are wanted for electrical work, wiring, etc. Address J. S. Hill, president, Morristown, Tenn.

Electric-light Machinery.—S. M. Bauer, 228 W. Main street, Louisville, Ky., wants a 40-light dynamo.

Electric-light Plant.—The Eno Cotton Mills, Hillsboro, N. C., Thos. H. Webb, superintendent, wants bids on electric-light plant for mill.

Electric-light Plant.—Proposals and estimates will be wanted on erection of electric-light plant for city of Pine Bluff, Ark. Address D. C. Bell, chairman of committee.

Engine.—The Greenup Light & Power Co., Greenup, Ky., is in the market for an engine for electric-light plant.

Engine.—C. C. Smoot & Sons Co., Alexandria, Va., wants to buy a 40 or 50-horse-power engine; second-hand would do if in good condition.

Filtering Apparatus.—A. Blair Antrim, Roanoke, Va., wants to buy two filters of 750,000 gallons capacity each.

Flour Mill.—The Watauga Roller Mill Co., W. W. Holsclaw, manager, Vilas, N. C., wants to buy machinery for roller mill; also water-wheel.

Gas Machine.—A gas machine is wanted by J. S. Hill, president, Morristown, Tenn.

Gasoline Engine.—Wanted—Eight to 10-horse-power gasoline engine; must be in good condition; give name of maker and length of time used. Address Y 230, Sun Office, Baltimore, Md.

Holting Engine.—Geo. Lemmon, Room I, Carroll Hall, Baltimore, Md., wants a holting engine, with upright boiler, about six or eight horse-power.

Hydraulic Machinery.—The Texas Gold Mining Co., Martin Armstrong, secretary, Nettie, Ga., wants to buy hydraulic machinery.

Ice and Cold-storage Plant.—John G. Brady, Tuscaloosa, Ala., wants estimates on a 10-ton ice and cold-storage plant.

Iron Rolling.—Newton Ward, Atkins, Va., wants to buy iron rolling for one-half mile of tramway for iron on banks.

Laundry Machinery.—L. E. Cox, Scranton, Miss., wants to correspond with makers of steam-laundry equipments.

Machine Tools.—See "Nail Machines."

Mica Machinery.—The Texas Gold Mining Co., Martin Armstrong, secretary, Nettie, Ga., wants information on machinery for preparing mica for the market; also wants to correspond with mica dealers.

Miners' Supplies.—Newton Ward, Atkins, Va., wants catalogues of miners' supplies.

Nail Machines.—Frank H. Vehr, 22 Leavenworth street, Cincinnati, Ohio, wants several small nail machines, tack machines and vibrators; also shears and tumblers.

Oil Mill.—Bids are wanted on the erection of a 20-ton cottonseed-oil mill. Address E. J. Hanley, Lake Providence, La.

Plumbing.—Bids are wanted for plumbing for gas and water. Address J. S. Hill, president, Morristown, Tenn.

Railway Equipment.—New railway company, now being formed, will purchase railway stock and equipment in the near future for 40-mile road. Address J. M. Parker, president First National Bank, Cripple Creek, Col.

Railway Equipment.—The North Carolina Building & Supply Co., Raleigh, N. C., wants to buy three to five miles of new or second-hand 16-pound rails; can use old-style flat street-car rails on stringers.

Railway Equipment.—Harry K. Ivens, New Orleans, La., is in the market for small locomotive to suit 36-inch gauge; second-hand will do.

Railway Equipment.—E. P. Ladd, Little Rock, Ark., will be in the market for 35-pound relaying steel rails, four miles, and one 20-ton standard-gauge locomotive.

Railway Equipment.—Ten or twelve miles of rails, possibly more, will be needed for railway. Address T. Tipton, Isabella, Ga.

Railway Equipment.—The Cameron & Barkley Co., Charleston, S. C., is in the mar-

ket for twenty 30-ton gondola bottom-dump standard-gauge cars, with automatic couplers, without air brakes.

Roofing.—W. H. Cross, 5 Valley Drive, Indianapolis, Ind., wants roofing for 26x36-foot roof, and for 16x30-foot roof; also wants windows, screens, doors, etc.

Roofing.—Ed. L. Thomas, Valdosta, Ga., wants to buy about 100 squares of No. 1 slate for church roof.

Roofing.—Newton Ward, Atkins, Va., wants to buy about sixteen squares of cheapest metal roofing, pieces to be five or six feet long.

Silver-plated Teaspoons.—I. S. Roland & Co., Rutherfordton, N. C., want to buy silver-plated teaspoons for advertising purposes.

Water-wheel.—See "Flour Mill."

Weaving Machinery, etc.—See "Cotton-mill Machinery."

TRADE NOTES.

The E. W. P. Allis Co., of Milwaukee, Wis., has contract for making improvements to the flour mills of Biddle & Ellsworth, at Johnson City, Tenn.

Southern Representative.—After July 1, Mr. R. D. Wade, late superintendent motive power of the Southern Railway, will act as Southern representative of the Baldwin Locomotive Works.

Sale of Electric Plant.—Mr. Geo. B. Edwards, special master, has charge of the sale of the Charleston (S. C.) Light & Power Co.'s plant, which is to be sold July 8. It is claimed that the business of the plant is a profitable one.

New Seed Fork.—A new shape for cottonseed forks is being introduced by the Ashtabula Tool Co., of Ashtabula, O. The company claims that the new shape is new and quite superior to the ordinary form of fork. It is made in ten and twelve tines.

Cottonseed Linters.—The Brown Cotton Gin Co., New London, Conn., is very busy on orders for its cottonseed linters with the automatic feed. This machine is very popular with all oil-mill managers and experts who have examined into its merits. This company claims to have been the originator of the automatic feed and the first to use it on linters.

Drop-forge Plant.—The Keystone Drop Forge Co., American and York streets, Philadelphia, Pa., has purchased the entire plant and appurtenances of what was formerly known as the Philadelphia Drop Forge Co. prior to its transient connection with the late King Drop Forge Co. Mr. A. Morris Hall, who was for six years connected with the business, has been retained as manager. Mr. Archibald R. Dewey is proprietor.

Warehouses, etc.—The Terminal Warehouse Co., of Baltimore, will, on and after July 1, operate the storage warehouses on the water front known as Miller's wharf (foot of Caroline street) in addition to and in connection with its present warehouses, situated at Holliday and Monument streets (hay warehouse) and at Davis, Pleasant and North streets (flour warehouse). This newly-acquired property is equipped with modern holting apparatus and is situated on the tracks of the Pennsylvania Railroad system of roads, for which the company is authorized agents for the collection of freight charges on merchandise handled by it.

A New Rotary Engine.—A new rotary engine has been invented and patented by Mr. C. E. Miller, of Harriman, Tenn. One of these engines has just been completed, weighing about 300 pounds and developing nearly ten horse-power, though built for six horse-power only. Some of the points of efficiency claimed for this engine by the inventor are its small size, light weight, low price at which it can be sold, ability to work steam by expansion at any cut-off, saving in operating, etc. Mr. Miller claims that thorough tests have shown the practicability of his invention, and works for building the engines will probably be established.

Apprentice System.—At the convention of the American Foundrymen's Association, recently held in Detroit, it was decided that the secretary of the association should have, as soon as possible, a conference with the president of the Iron Molders' Union with reference to arranging details for the inauguration of a permanent apprenticeship system that should be adopted as far as possible all over the country. That conference

has been held, and the officers of the union are very anxious to assist the association in every way possible, and as far as they are able to do so they will co-operate with the executive board of the American Foundrymen's Association.

Heating Plants.—The school board of New Orleans, La., solved the difficulty in the lack of sewerage two years ago by placing the dry-closet system of the Peck-Hammond Co., of Cincinnati, O., in their new schools. Now, after a two-years' test of them, they have recently contracted with the company for dry closets in a new school in course of erection. If all that is claimed for these dry closets are facts, they are almost wonderful. Another contract the company has received is for heating and ventilating a church now being built at Chester, S. C. We understand this system is in use in numerous churches throughout the South and giving satisfaction.

Big Electrical Contract.—The Westinghouse Electric & Manufacturing Co. on Tuesday, June 22, 1897, declared a regular quarterly dividend on its preferred stock of 1½ per cent. The annual meeting of the stockholders was held in East Pittsburgh, Pa., last week, the annual report showing the company to be prosperous. The same board of directors of last year were re-elected, being composed of August Belmont, Lemuel Bannister, Geo. Hobard, Henry R. Hyde, Marcellus Hartley, A. M. Byers, N. W. Bumstead, Chas. Francis Adams, Brayton Ives and Geo. Westinghouse, Jr. After the meeting the announcement was made that about the largest contract for electrical apparatus ever given out was secured by the Westinghouse Company last Saturday. The contract is from the St. Lawrence Construction Co., of New York, and calls for fifteen 5000 horse-power generators, to be erected at Massena, N. Y. This is claimed to be the largest single order ever given for electrical apparatus, and the amount directly involved is about \$750,000.

Condensing Steam Ram.—Remarkable efficiency of the condensing steam ram manufactured by the Erwin Hydraulic Machinery Co., of Milwaukee, Wis., is shown by the following extract from a letter to the company from Jacob Cloos, a consulting engineer of Milwaukee: "The size of the ram tested was three inches in diameter by nine inches in length, steam inlet one-quarter of an inch, water discharge pipe one inch in diameter, and boiler pressure sixty-five pounds. This ram delivered 2538 pounds of water in fifteen minutes at an elevation of forty-four feet three inches, with a total evaporation of forty-six pounds of water, the check valve being removed. After replacing the check valve we delivered the same amount of water at the same elevation in twenty-three and a-half minutes, with an evaporation of thirty-four pounds of water. Comparing this duty with the theoretical horse-power as a basis for calculation, the above test demonstrates that the Erwin condensing ram will perform more than double the duty of any other contrivance known to me. The water was delivered in a steady flow from beginning to the end of test, and after this kept up running at a slight reduction in delivery until the steam pressure dropped down to twenty pounds."

Buckeye Engines.—Mr. J. W. Taylor, sales agent of the Buckeye Engine Co., of Salem, Ohio, with office in the Manufacturers' Record Building, Baltimore, Md., has furnished us with a list which gives some idea of the esteem in which Buckeye engines are held by the higher class of manufacturers. An examination of the list shows that Buckeye engines are in twenty-one of the largest car works in the United States, with a total of 5000 horse-power; in 381 flour mills and grain elevators, with a total of 36,564 horse-power; in 184 paper mills and paper-box factories, with a total of 21,492 horse-power; in fifty-eight asylums and public institutions, with a total of 3811 horse-power; in 136 of the largest steel, wire and nail mills, with a total of 19,441 horse-power; in seventy-five oil mills and refineries, using a total of 8252 horse-power; in 126 of the largest machine shops, with a total of 10,050 horse-power; in thirty-one of the largest printing establishments, with a total of more than 2000 horse-power; in forty-eight of the largest furniture factories, with a total of 4127 horse-power; in seventeen piano and organ factories, with a total of 1329 horse-power; in 127 cotton and woolen mills, with a total of 17,500 horse-power; in 477 electric-light and street-railway plants, with a total of 71,000 horse-power; in 197 planing mills and variety works, with a total of 21,296 horse-power. The company has issued a pamphlet showing a complete list of users of the Buckeye automatic cut-off engine since its first introduction in 1874.

EASTERN NORTH CAROLINA.

Its Wide Variety of Products and Its Facilities for Transportation.

Editor Manufacturers' Record:

There is so much in common between Tidewater Virginia and Eastern North Carolina, so much similarity in the climate, physical characteristics, products and people, that it has often, and not unnaturally, been wondered why this territory was not within the political bounds of Virginia, as it assuredly is within the commercial control of her chief seaport, whither lead, like those of Rome, all its highways, by land and water.

ALONG THE SOUNDS.

Lacking the features and influences of deep waterways, the sounds yet possess many valuable and interesting characteristics, spreading out along, or penetrating into, the eastern front of the State, viz., Currituck, Albemarle, Croatan, Pamlico, Core, Bouge and several smaller ones.

These broad surfaces of shoal water are peculiarly sensitive to wind pressure, and while there are no lunar tides save about the inlets, a prevailing or strong wind will drive the waters in opposite directions; thus a southerly gale will bank up the waters in the upper sounds, and westerly and northerly winds will push the waters of the Albemarle and Currituck and their tributaries into Pamlico sound, changing the depth of the water proportioned to the length and severity of the blow. These moving currents of varying swiftness pass to and fro through Croatan sound, and each and all move back and forth the sand and silt of the bottom until at about midway its length there has been formed a shoal with about eight feet of water in ordinary stages, and vessels whose cargoes require certainty and dispatch of movement do not load over seven feet.

This, then, is the governing depth of water regulating the capacity of all vessels bound to or from Pamlico sound, its inlets or tributaries, whether sail, barges or steamers, and it matters not if canals above or inlets below have twice the depth, nature has put eight feet and no more in this the single pass of greatest traffic, and its remedy lies beyond the resources of either private enterprise or a paternal government.

COMMERCE.

From the colony's earliest days, when Eastern North Carolina was the property of the lords proprietors—favorites of Charles II—trade grew in value and volume, facilitated by the system of inlets, sounds and rivers already described.

Out of this demand grew the Dismal Swamp Canal, chartered in 1787 and opened for traffic in 1824, with five locks, limiting vessels to ninety feet length, sixteen feet width and five feet or less depth, and for some years it was a crowded and paying thoroughfare, but the traffic outgrew the canal's limitations, and it was closed to traffic about 1880. Shortly before the war the Albemarle & Chesapeake Canal was projected and begun. After the war it was completed and became the resort of nearly all the traffic to and from the North Carolina sounds. It has but one lock, admitting vessels 240 feet long, forty feet wide and eight feet draft.

Very shortly after the completion of this canal the railroads began to penetrate Eastern North Carolina. A large mileage was built in the decade following 1880, providing that territory with ample highways for its commerce and quickly changing all the traditional and existing methods of distribution. Western hog products, flour and hay, that used to move via Baltimore, Chesapeake bay and through the canals, are distributed

through the territory by all rail; perishable freights, i. e., fresh fish and vegetables, go exclusively by express and fast freight, none of them hazarding the uncertainties of the canals, for the winds that lower the sounds and rivers lower the canals too; indeed, there was little of this traffic before the railroad era.

The cotton, grain, shingles and like products which loaded the steamboats and vessels back were diverted, and by rail sought new as well as the old markets, leaving little to the canal save logs and lumber. The railroads reach all the towns and villages and tap, cross or parallel all the important streams.

PRODUCTS.

Eastern North Carolina will always be the home of the fisherman and the farmer. With the climate of Southern France, a mean temperature of 61°, an adequate rainfall and no tornadoes, the soils and seasons capable of two crops annually, the waters teeming with food, surely all the forces of nature are kindly helpful. The staple crops are cotton, corn and tobacco, but Irish and sweet potatoes and green peas, asparagus, cabbage, beans, cantaloupes and watermelons are increasing in quantity each year. The popula-

counties; a road was built from Wilmington to Newbern, and a half-dozen narrow-gauge roads here and there added something to the general volume of facilities, until now there is probably no citizen of the entire region whose home is three miles from a vessel landing, a steamboat wharf or a railroad station.

To a practiced eye there have been indications that the railroad building was in advance of needs and that for some there must be patient waiting, if no worse.

Others see differently, for it is projected, and some work is being done tentatively, to rebuild the Dismal Swamp canal. It is proposed to spend about \$1,250,000 to enlarge the canal to forty feet bottom width, sixty feet at top, with minimum depth of ten feet of water; to remove three locks and retain two, 250 feet long and forty wide, with ten turn-outs 200 feet long and twenty wide; expecting to give steamers a speed of ten miles per hour in the canal; to secure much of the Southeast coast trade in steel barges towed by tugs from Savannah, Charleston and Jacksonville, and beneficently to provide adequate outlets for Eastern North Carolina, which, says

Dismal Swamp Canal are greatly in excess of those for the Albemarle & Chesapeake Canal. The cost of four locks, which will be necessary for the proper improvement of the Dismal Swamp Canal, forms no inconsiderable part of the total estimate, and inasmuch as this is a summit-level canal, whose length is more than twice that of the Albemarle & Chesapeake Canal, which is practically a tidewater canal, it becomes plainly evident that whatever the plan we may adopt for the improvement of the two, if we seek to give the same sectional waterway and the same dimensions of locks to each, the estimates for the summit level must necessarily be the greater."

The line of the Albemarle & Chesapeake Canal was adopted by the Government for improvement, and the subsequent appropriations, including the fiscal year 1896, amount to \$277,000.

In the projected plan of enlarging the Dismal Swamp Canal the locks are curtailed to two and the waterway to forty feet bottom width.

Another survey of this line was authorized by Congress in 1894 and was made, under the supervision of Capt. T. L. Casey, U. S. Engineers, by the same engineer who made the former one, and he reports "the results obtained by this survey verify the work done by the survey of 1878 and 1879."

Captain Casey also made a preliminary examination of Deep creek branch of Elizabeth river, Virginia, being the northern approach to the canal, and reported in 1894:

"The only ground which could be taken as a pretext for the assumption of the work (i. e., improving the creek) by the Government is that the canal in its completed state would constitute a slightly more advantageous strategic line of in-

through without disturbing their formation. Nothing like this can be done in the summit-level locks of the other canal which excludes this business, nor will tows of barges and vessels break up to lock through twice when once will do.

The idea of the commerce of the Southeast States abandoning coastwise steamers and vessels for light-draft barges simply to pass in at Ocrakoke and out between the Virginia capes may be dismissed as a flight of the prospectus writer. There is no such movement now, with every motive and facility, that the proposed canal will offer.

Let us see what hospitality Eastern North Carolina extends to the newcomers, for it is there, after all, if anywhere, that they must look for any return upon the proposed expenditure, if made.

There are thirty counties in Eastern North Carolina traversed by the Wilmington & Weldon Railroad and lying east thereof, between the Cape Fear river and the Virginia line. A comparison of the population and staple products of those counties, excluding lumber as a declining industry and perishable food products as too valuable for water carriage, show:

	1880.	1890.
Population	403,185	429,174
Cotton, bales	169,137	123,975
Corn, bus.	7,470,352	6,047,094
Rice, lbs.	3,417,377	4,023,258
Tobacco, lbs.	178,986	537,974
Potatoes, Irish and sweet, bus.	2,255,688	2,785,346

An increase in population of 6½ per cent., an average decrease of 22 per cent. in production of cotton and corn and an increase of 80 per cent. in rice, tobacco and potatoes.

During the same period the railroad mileage and capitalization, exclusive of the lumber roads, increased as follows:

Roads.	Miles.		Capitalization.	
	1880.	1890.	1880.	1890.
Atlantic & North Carolina.....	95	95	\$2,122,000	\$2,122,000
Atlantic Coast Line.....	180.50	463.12	3,075,300	9,419,300 est.
Roanoke & Tar River.....	.....	32.50	.....	265,500
Norfolk Southern.....	.....	75.61	.....	3,901,100
Wilmington & Newbern.....	.....	50.15	.....	1,718,000
	275.50	716.18	\$5,197,300	\$17,125,900

ternal communication than that at present in use by way of the Albemarle & Chesapeake Canal, upon which the general Government has already expended considerable sums of money.

"I am of the opinion, therefore, that the channel of Deep creek is not at present worthy of improvement by the general Government."

To a casual observer it is not plain why the first cost of the proposed canal should be magnified to provide ten feet of water in the canal when there are but eight feet in Croatan sound, nor is it apparent how a property with interest charges upon over \$1,000,000, taxes and cost of operating and maintaining twenty-two miles of canal and two locks can be profitably operated in competition with a rival canal about to exchange a 7 per cent. bond for a 5 per cent. one or less, with only eight miles of canal, having eight feet of water and one lock, and that a tidal one, having due regard also to a railroad between the canals that, with its steamboat connections, reaches every point in Eastern North Carolina, that has no grades, that hauls its general traffic in trainloads of fifty cars and more, that sends its perishable freight from Edenton to Norfolk in three hours and from Elizabeth City in two, and will reduce that time 30 per cent. when necessary.

A large, if not the chief, traffic of the Albemarle & Chesapeake Canal is rafts of pine logs, each several hundred feet long, in tow of tugs, which, on reaching the lock, wait until the tide in the Elizabeth river is of the level of the water in the canal (four times daily), when the gates are opened and the rafts are pulled

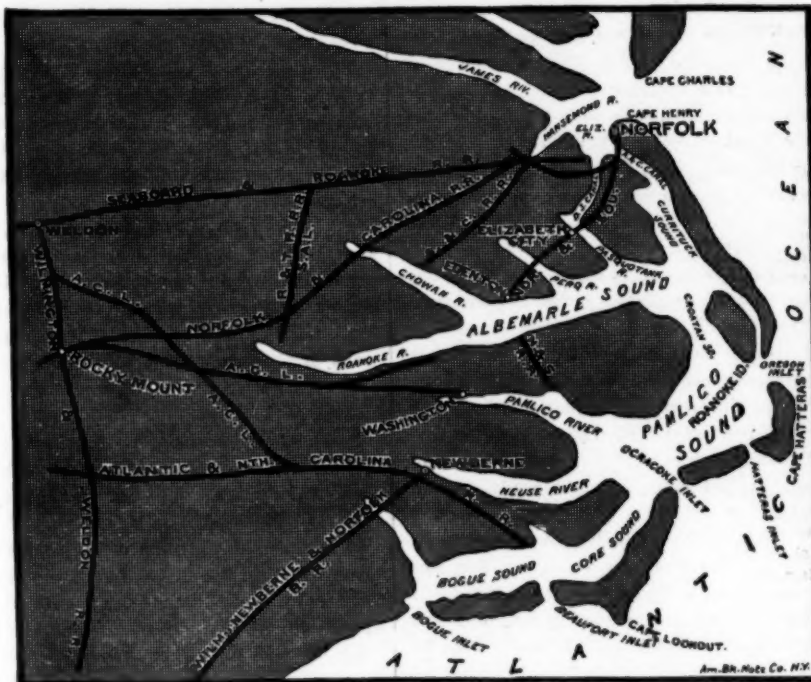
This is an increase in

Mileage	of 160 per cent.
Capitalization	" 247 "
Miles per 1000 population ..	" 144 "
Miles per 1000 square miles ..	" 160 "

The Albemarle & Chesapeake Canal Co. has paid its interest and an occasional dividend of 1 per cent. The Atlantic & North Carolina Railroad Co., a State-controlled property, politically managed, with gross earnings of about \$140,000 per annum, has paid three dividends of 3 per cent. during five years of steadily declining earnings. The published reports of the Atlantic Coast Line do not show separate results of the operation of branch lines, but upon about seventy miles in 1893 there was a deficit in income account of \$289,124, and another 110 miles paid no dividends until 1896, upon the receipt of \$23,231 rental from another company.

The Roanoke & Tar River is leased and makes no reports. The Norfolk Southern succumbed after ten years' operation, and was reorganized in 1891, scaling down its securities and floating debt from \$3,601,100 to \$2,700,000, the latter sum including the cost of thirty additional miles of road and a complete reconstruction of the original property, the shrinkage being almost \$1,000,000. It now has a small bonded debt and is dividing 4 per cent. upon the stock out of earnings largely derived from its lumber traffic and economies resulting from its reconstruction.

Certainly this is not an inviting field for investing another \$1,000,000 or so in transportation, but the conditions herein described are so plain that any kind of a wayfarer can read them.



NORFOLK AND ITS NEIGHBORHOOD.

tion immediately upon the sounds is more and more employed in taking oysters and fish, an industry sharply stimulated by the railroads. From any part of the territory food products can be shipped daily and marketed at low cost within from twenty-four to seventy-two hours among the population extending from Washington, D. C., to Boston.

The use of improved dry-kilns and band saws wonderfully enlarged the manufacture of North Carolina pine, as it is called, being the short-leaved pine and well suited by its quality to compete with the higher-priced white pine and hemlock. Numerous mills sprang up for several years after 1887, and their product became a large factor in the carrying trade by rail and water. The crest of this wave has passed, the watercourses are largely denuded of mill timber and the owners of most of that yet standing have located their mills on lines of railroad.

The increasing acreage in vegetables (truck), the expanding fisheries and the pine lumber all combined to stimulate railroad building. The Atlantic Coast Line, with a wise farsightedness, extended branches throughout the territory; the Seaboard & Roanoke Railroad put out one to the Roanoke river; the Norfolk Southern traversed the northeast

the prospectus, "is poorly supplied with railroads and must seek an outlet for its products by water transportation."

Apparently this undertaking is another of the vagaries of promoters.

About 1875 the then owners of the two canals attempted to persuade the Government to select their respective routes for the expenditure of the money about to be devoted to improvement of the public waterways between Norfolk harbor and Albemarle sound. Congress finally ordered a comprehensive survey to ascertain the comparative merits of the two routes, which was made in 1878 and 1879 by Capt. C. B. Phillips, U. S. Engineers, who reported in 1880. The relative distances by the two routes between common points in Norfolk harbor and Albemarle sound are:

By the Dismal Swamp line	72.84 miles.
By the Albemarle & Ches. line	72.71 "

It was proposed to make a waterway by either line of eighty feet bottom width and nine feet deep. To do this would cost, it was estimated, by the Albemarle & Chesapeake Canal, with one lock, \$509,701, and by the Dismal Swamp Canal, with four locks, \$1,483,646.

The engineer directly in charge of the survey concludes his report as follows:

"From the foregoing it will be seen that our estimates for the improvement of the

Flour Mills.—J. M. Telfer & Bro., of Doyle's Mills, Pa., have placed order with the Wolf Co. of Chambersburg, Pa., for gyrator and other necessary machinery for remodeling their 30-barrel mill to the gyrator system; company have also booked contract for McPheeters, Bullington & Co.'s 50-barrel mill at Hardinsburg, Ind. It will be on the gyrator system; also with Bauch Bros., of Cabool, Mo., for two gyrators of 100 barrels capacity, and will remodel their mill to the gyrator system.

Few people are aware of the variety of goods shipped from the South to all parts of the world. The steamer Georgia, of the Old Bay Line, plying on the Chesapeake Bay between Baltimore and Norfolk, recently brought into Baltimore for shipment consignments of Southern goods to Cape Town, Africa, Kingston, Jamaica, Shanghai, China, and London, England. A part of the Chinese consignment was cigarettes made in North Carolina.

ALLEGHANY MOUNTAINS.

A Personally-Conducted Tour to Cresson via Pennsylvania Railroad.

The Pennsylvania Railroad Co. has arranged to run a special tour from New York, Philadelphia, Baltimore, Washington, Harrisburg and intermediate points to Cresson Springs, Pa., on Saturday, July 3, affording an excellent opportunity to spend the Fourth on the summit of the Alleghenies.

Round-trip tickets, good going only on July 3 on trains indicated below, or any train arriving in Philadelphia before 12.20 P. M., and thence on special train, and good returning on regular trains within ten days, including also one full day's board at the magnificent Mountain House, will be sold at the following rates:

	Rate.	Train leaves
New York.....	\$9 50	8.55 A. M.
Newark.....	9 50	9.30 "
Elizabeth.....	9 50	9.40 "
New Brunswick.....	9 00	10.11 "
Phillipsburg, N. J.....	9 50	8.00 "
Trenton.....	8 50	10.58 "
Pottsville.....	9 50	9.00 "
Wilmington.....	8 50	11.25 "
Philadelphia.....	8 00	12.20 P. M.
Washington.....	8 00	10.50 A. M.
Baltimore.....	8 00	12.00 noon.
Harrisburg.....	6 00	3.00 P. M.

Proportionate rates from other points.

To persons remaining at Cresson for a longer period than one day a special reduction in hotel rates will be given.

For tickets or additional information consult ticket agents.

Personally-Conducted Tours via Pennsylvania Railroad.

That the public have come to recognize the fact that the best and most convenient method of pleasure travel is that presented by the Pennsylvania Railroad Co.'s personally-conducted tours, is evidenced by the increasing popularity of these tours. Under this system the lowest rates are obtained, for both transportation and hotel accommodation. An experienced tourist agent and chaperon accompany each tour to look after the comfort of the passenger.

The following tours have been arranged for the season of 1897:

To the north (including Watkins Glen, Niagara Falls, Thousand Islands, Montreal, Quebec, Au Sable Chasm, Lakes Champlain and George, Saratoga, and a daylight ride down through the Highlands of the Hudson), July 27 and August 17. Rate, \$100 for the round trip from New York, Philadelphia, Baltimore and Washington, covering all expenses of a two-weeks' trip.

To Yellowstone Park on a special train of Pullman sleeping, compartment and observation cars and dining car, allowing eight days in "Wonderland," September 2. Rate, \$235 from New York, Philadelphia, Baltimore and Washington; \$230 from Pittsburgh.

To Niagara Falls, excursion tickets good to return within ten days will be sold on July 22, August 5 and 19, September 4 and 16, at rate of \$10 from Philadelphia, Baltimore and Washington. These tickets include transportation only, and will permit of stop over within limit at Buffalo, Rochester and Watkins on the return trip.

Two 10-day tours to Gettysburg, Luray Caverns, Natural Bridge, Virginia Hot Springs, Richmond and Washington, September 28 and October 12. Rate, \$65 from New York, \$63 from Philadelphia.

FINANCIAL NEWS.

The Manufacturers' Record invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

No advertisements but those of a financial character will be accepted for the following page.

THE BANKING QUESTION.

Mr. S. Wittkowsky's Discussion of the Canadian System.

In his interesting address recently before the Mecklenburg Historical Society at Charlotte, N. C., Mr. S. Wittkowsky traced the development of the Canadian banking system, which he characterized, according to the Charlotte Observer, as so simple that a child might understand, as effective, safe and elastic. He said:

"To start a bank in Canada all that is necessary is for at least \$100 of subscribed capital to be paid in, which is deposited with the minister of finance until the organization and election of officers of the bank is perfected, and on so advising the minister, he turns over to the bank the full amount so deposited with him. The bank is now ready for business—and in addition to its paid-up capital, the bank is authorized further to issue bills equal in amount to its paid-up, unimpaired capital. There are no restrictions as to what proportions shall be kept for reserve, excepting that whatever amount the bank officials deem prudent to keep for such purpose of the amount so kept as reserve, 40 per cent. must be in Canadian government bills, which are legal tender. A bank has a right to open as many branches and in as many places as it sees fit. Each bank has to deposit with the government a sum equal to 5 per cent. of the amount of its note issue, on which the government pays the bank 3 per cent. interest. This 5 per cent. is a general fund, out of which, in case of failure of the bank, the bill-holder gets his money, and in addition, he receives interest at the rate of 6 per cent. from the day of the failure of the bank until he is paid, which, under no condition, does the government permit to be longer than sixty days, and as each stockholder is individually liable for an amount equal to the stock owned by him, the bill-holder is secured as follows:

"1st. By the amount of its paid-in and subscribed capital.

"2d. By the whole assets of the defaulted bank.

"3d. By the liability of the individual stockholder to assessment, equal to the amount of stock held by each.

"4th. By the 5 per cent. redemption fund held by the bank.

"5th. In case all the above is not sufficient for that purpose, then by the assessment of all the Canadian banks of an amount (no greater, however, than 1 per cent. for any one year) to make good the par value of the bill-holders' claims, including interest as above set forth, thus making the bill-holder absolutely safe.

"In case of over issue by a bank of the amount it is entitled to, the following penalties are imposed: If the amount of over issue is less than \$1000, an amount equal to such excess; if over \$1000, and less than \$20,000, a penalty of \$1000; if over \$20,000, and less than \$100,000, a penalty of \$10,000; if over \$100,000, and less than \$200,000, a penalty of \$50,000, and if over \$200,000, a penalty of \$100,000. This, in short, is the whole of the Canadian system of banking."

Comparing the system with that of the United States, he said:

"To commence a bank in the United States, with, say, \$100,000 capital, the

incorporators wishing to have note circulation of their own have to go to the open market and buy \$100,000 United States bonds, paying for them a premium varying from 12 to 15 per cent.—(it has reached as high as 30 per cent.)—but let us for the present purposes say the premium is 15 per cent., so that it takes \$115,000 to obtain the bonds. These are deposited with the comptroller of the currency, on which the new bank receives \$90,000 of bills, out of which it is required to leave with the treasurer 5 per cent. as redemption fund, of \$4500, hence the amount available for circulation in a given community from which was gathered in money \$115,000, is only \$85,500, hence thus far a shrinkage of the circulating medium of \$29,500. Let us go a step further, and say the bank has commenced operations, and lent out, say, \$75,000, keeping in the vault only \$10,500 to meet current demands (which is the least amount ordinary prudence would dictate), hence, out of the \$115,000 gathered from a given community, but \$75,000 can reasonably be expected to be lent out, and, therefore, we find a curtailment of available money, the sum of \$40,000. Now, let us go a step further and say it is summer time, and the merchants have to sell to the farmers on credit until the crop comes in (or the farmer goes to the bank direct to borrow until he makes his crop). The merchant, in order to meet his obligations, has to call on the bank for further loans. The bank's available money has been loaned out. What is the result? The merchant in some cases has to go under for want of further bank accommodations, or the bank has to go to the moneyed centres of the North to borrow, paying varying rates, according to New York's financial barometer, and as it cannot be expected the bank will do business without profit, the bank having to pay interest on its borrowed money, must necessarily charge a high rate of discount, which the merchant or farmer can ill afford, paying already a high rate.

"Now, let us consider the same condition of affairs under the Canadian system. It has already been pointed out that, in the first place, under that system when, during the summer months, the merchant or farmer needs further accommodations, or when crop-moving time arrives, the bank need not go to New York to borrow, but issues its own bills; in other words, lends its own credit in a currency which has been shown to be at once safe and elastic.

"To sum up the situation, we find the result in the United States, out of a paid-up capital of \$115,000, but \$75,000 loanable funds, and on the Canadian system of paid-up capital of \$115,000, a loanable fund of at least \$200,000, and equally as safe as that of the United States. There is another grave and potent reason why the Canadian system of elastic banking, or a similar system, is of imperative necessity. We all know that every kind of business is now transacted on the very smallest possible margin of profit; that our farmers, merchants and industrial institutions have to compete with sections which get their money from 3 to 4 per cent., while we of the South and West pay from 6 to 12 per cent., and it requires no Solomon to deduct the final consequences. We must have money at a lower rate of interest. The banks as now constituted cannot afford to lend at lower rates for reasons already set forth, viz., they have on an available loaning capacity of only 62 per cent. of its capital to make sufficient profits to cover running expenses of the bank and make dividends for the stockholders on paid-in capital of \$115,000, and in addition, the extra interest they have to pay on borrowed money

in case they borrow any. But under the Canadian system, a bank need not borrow, and as it can issue \$2 for \$1 of capital paid in, a bank lending at 4 per cent. will make 8 per cent. on its capital, whereas under our system, a bank lending at 8 per cent. makes but 5 per cent."

A Prosperous Bank.

In the list of dividend and interest disbursements, reference is made to the Bank of Biloxi, Miss. The semi-annual dividend for the period ending July 1 shows a remarkably prosperous condition, and indicates the opportunity for establishing banks in communities in the South. In addition to declaring the semi-annual dividend of 10 per cent., it is reported that 10 per cent. has been added to the surplus fund, 5 per cent. to the undivided profits, making the total of the profits for the first six months of the year 25 per cent., or at the rate of 50 per cent. for the year. The bank was organized in March, 1893. Its officers are John Walker, president; H. W. Howard, vice-president, and John Carraway, cashier.

New Corporations.

E. M. Reardon, W. C. Howard and others are interested in the national bank which it is proposed to organize at Dallas, Texas, with \$100,000 capital.

The Citizens' Bank, which is being organized at Lufkin, Texas, it is expected will be opened for business about July 15. J. W. Craven, of Iretton, and John H. Snow, of Lufkin, are among those interested.

The Montgomery Insurance Co., of Montgomery, W. Va., has been incorporated by J. W. Hutchinson, of Montgomery; George E. Terry, of Washington, D. C., and others. The capital stock of the company is \$150,000.

New Securities.

It is reported that the city of Richmond, Va., may issue \$25,000 worth of bonds for sewerage purposes. The mayor may be addressed.

It is reported that the city of Parkersburg, W. Va., is considering the issue of \$150,000 worth of bonds for improvement purposes. The mayor may be addressed.

It is reported that Fayette county, Kentucky, will issue \$10,000 in bonds on July 20. F. A. Bullock, of the Fiscal court, may be addressed at Lexington, Kentucky.

The issue of \$195,500 worth of refunding bonds of Sedalia, Mo., has been awarded to the W. G. Eads Brokerage Co., of Kansas City, at 100.30. The bonds bear 4½ per cent. interest.

Messrs. Seasegood & Mayer, of Cincinnati, Ohio, have purchased the issue of \$20,000 in water-works bonds issued by Clarksville, Tenn., at par. The bonds bear interest at the rate of 5 per cent.

Hon. Alcaeus Hooper, mayor, announces that proposals will be received until July 8 at the City Hall, Baltimore, for the purchase of \$200,000 worth of the 3½ per cent. stock of the city. Proposals will also be received at the same time for the purchase of an issue of \$400,000 in 3½ per cent. stock.

Dividends and Interest.

With this issue the Manufacturers' Record gives a partial list of the interest and dividend disbursements of Southern railroads and other corporations announced to be made July 1. While it is necessarily incomplete, as a large number of the corporations have not announced payments as yet, it gives an idea of the extent of the payments and the interest on investments made in the South:

Wilmington, N. C.—Atlantic National Bank, 3 per cent. semi-annual and \$5000 added to surplus fund; Wilmington Savings

& Trust Co., 3 per cent. semi-annual dividend; National Bank of Wilmington, 3 per cent. semi-annual.

Mobile, Ala.—Mobile Brewing Co., semi-annual dividend.

Biloxi, Miss.—The Bank of Biloxi, 10 per cent. semi-annual in addition to 15 per cent. added to surplus fund and undivided profits.

Richmond, Va.—Richmond & Petersburg Railroad Co., \$3.50 per share; Petersburg Railroad Co., \$3.50 per share; Richmond, Fredericksburg & Potomac Railroad Co., \$3 per share; Metropolitan Bank, 3 per cent.; Security Bank, 3 per cent.; Virginia Trust Co., 3 per cent.; Planters' National Bank, 6 per cent.; State Bank of Virginia, 3½ per cent.; United Banking & Building Co., 6 per cent.; Henderson Electric Co., 4 per cent.; Virginia State Insurance Co., 3 per cent.; First National Bank, 5 per cent.; People's Loan & Trust Co., 3 per cent.; Savings Bank of Richmond, 3 per cent.; Columbian Building and Loan Association, semi-annual interest; Union Bank of Richmond, 6 per cent.; City Bank, 3 per cent.; Merchants' National Bank, 3½ per cent.; Granite Building Co., 3 per cent.; Fire & Marine Insurance Co., 4 per cent.; Commercial Building and Loan Association, semi-annual dividends; American Home Building and Loan Association, semi-annual dividends.

Baltimore, Md.—Peabody Fire Insurance Co., 5 per cent. semi-annual; Monumental Savings and Loan Association, semi-annual; George's Creek Coal & Iron Co., \$3 per share semi-annual; Baltimore Traction Co., 1½ per cent.; American National Bank, 2½ per cent. semi-annual; Drovers and Mechanics' National Bank, 3 per cent. semi-annual; Manufacturers' National Bank, 2½ per cent. semi-annual; German Bank, 2½ per cent. semi-annual; Co-operative Loan Association, 2 per cent. quarterly; National Fire Insurance Co., 3 per cent. for five months; Northern Central Railway Co., 3 per cent. semi-annual; Firemen's Insurance Co., 4 per cent. semi-annual; Alabama Building Association, 3 per cent. semi-annual; National Exchange Bank, 3 per cent. semi-annual.

Savannah, Ga.—Augusta & Savannah Railroad Co., \$2.50 per share; Savannah Brewing Co., \$3 per share; Chatham Bank, \$3 per share semi-annual; Oglethorpe Trust Co., 3 per cent.; Germania Bank, \$3 per share semi-annual; Savannah Trust Co., \$3 per share.

Columbus, Ga.—National Bank of Columbus, \$5 per share semi-annual.

Galveston, Texas.—Texas Land & Loan Co., 3 per cent. semi-annual.

New Orleans, La.—Germania Savings Bank, \$8 per share semi-annual; Teutonia Insurance Co., 5 per cent. semi-annual; New Orleans National Bank, \$15 per share semi-annual; New Orleans Gas Light Co., \$3.50 per share semi-annual; Orleans Railroad Co., July coupon; Jefferson City Gas Light Co., \$2.50 per share semi-annual.

Coupons due July 1, 1897, on the following Southern Railway bonds will be paid by J. P. Morgan & Co., New York: Southern Railway Company first consols mortgage 5 per cent.; Richmond & Danville consolidated mortgage 6 per cent.; Richmond, York River & Chesapeake first mortgage 5 per cent.; Western North Carolina first mortgage 6 per cent.; Charlotte, Columbia & Augusta first mortgage 5 per cent.; Columbia & Greenville first mortgage 5 per cent.; East Tennessee, Virginia & Georgia divisional mortgage 5 per cent.; Alabama Central first mortgage 6 per cent.; Georgia Pacific first mortgage 5 per cent.; Knoxville & Ohio first mortgage 6 per cent.; Spartanburg, Union & Columbia first mortgage 4 per cent., and East Tennessee, Virginia & Georgia first mortgage 7 per cent.

Interest Payments.—By Alexander Brown & Sons, Baltimore, 5 per cent. collateral trust bonds of Baltimore Traction Co.; by First National Bank, coupons of Consolidated Gas Co.; by Safe Deposit & Trust Co., coupons of Brush Electric Co., also 5 per cent. coupons of Baltimore, Catonsville & Ellicott Street Railway Co.; by Townsend Scott & Sons, interest on city of Staunton, Va., 4½ per cent. bonds. At the office of the Mercantile Trust & Deposit Co.: Georgia, Carolina & Northern Railway 1st 5s, Seaboard & Roanoke Railroad 1st 5s, Raleigh & Gaston Railroad 1st 5s, Raleigh & Gaston Railroad 1st 8s, Raleigh & Augusta Railroad 1st 6s, Georgia Southern & Florida Railroad 1st 5s, Baltimore & Ohio Equipment Co. 6s, Aberdeen & West End Railroad 1st 6s, Town of Wytheville (Va.) Electric Plant 6s, Columbus (Ga.) Water Works Co. 1st 6s, Monticello Distilling Co. 1st 6s, College of Physicians and Surgeons 6s, Salisbury Water Co. 5s, National Brewing Co. 1st 6s, City of Raleigh (N. C.) 5s, City of Radford (Va.) 6s, Shreveport Gas, Electric Light & Power Co. 1st 7s, George W. Collier Mortgage 6s, City of Asheville

TABLE OF CONTENTS.

EDITORIAL:	Page.
Indications of Prosperity.....	385
The Duty of the Hour.....	385
The South Pleased Him.....	385
Two Southern Governors.....	385
The Mississippi Levees.....	386
Against Improper Packing.....	386

Impressed by the South.....	386
South Carolina Granite.....	386
A Report Denied.....	386
Uniting Cotton and Wool.....	387
Improvements at Sabine Pass.....	387
Building Activity at Norfolk.....	387
Galveston's Bright Prospects.....	387
For a New York Exposition.....	387
Literary Notes.....	388

RAILROAD NEWS:

The Tennessee Exposition.....	388
Railroads in South Georgia.....	388
A Statement Verified.....	389
Changes on the Southern.....	389
An Arkansas Project.....	389
Jacksonville, Tampa & Key West.....	389
To Southern Melon-Growers.....	389
Moore County & Western.....	389
Pennsylvania's Press Excursion.....	389
New Southern Freight Line.....	389
The Seaboard's Industrial School.....	389
Railroad Notes.....	389
Visit to Buena Vista.....	389

COTTONSEED OIL:

The Market for Cottonseed Products.....	390
Cottonseed-Oil Notes.....	390
Textile Notes.....	390

LUMBER:

Lumber Market Reviews:	
Baltimore.....	390
Charleston.....	390
Savannah.....	390
Mobile.....	391
St. Louis.....	391
Pensacola's Lumber Trade.....	391
Lumber Notes.....	391
Minerals of Georgia.....	391

MECHANICAL:

Automatic Gaining Machine (Illus.).....	392
New Bliss Wiring Press (Illus.).....	392
New 37-Inch Wheel Band Saw (Illus.).....	393
The Ross Reversible Ball-Gauge Cock (Illustrated).....	393
Card Portable Motor (Illus.).....	393
Straightway Back-Pressure Valve (Ill.).....	393
Tramway Locomotive (Illus.).....	394
Electric Plant for Silverware Factory (Illustrated).....	394

PHOSPHATES:

Phosphate Markets.....	395
Phosphate and Fertilizer Notes.....	395
Iron Markets.....	395
Cotton and Iron Shipments.....	395
Trade Literature.....	395

CONSTRUCTION DEPARTMENT:

New Enterprises.....	396
Building Notes.....	396
Railroad Construction.....	397
Machinery Wanted.....	397
Trade Notes.....	398
Eastern North Carolina (Illus.).....	398

FINANCIAL NEWS:

The Banking Question.....	400
A Prosperous Bank.....	400
New Corporations.....	400
New Securities.....	400
Dividends and Interest.....	400
Financial Notes.....	401

(N. C.) 5 per cent. market bonds, City of Asheville 5 per cent. sewerage bonds, City of Asheville 5 per cent. street improvement bonds, City of Asheville 5 per cent. school bonds, City of Asheville 6s, City of Petersburg (Va.) 5s, City of Charlottesville (Va.) 5s, Belt Railway Co. of Chattanooga 1st 3s, City of Staunton (Va.) 5s, Norfolk Street Railroad Consolidated 5s.

Financial Notes.

E. M. Turner has been elected president of the Farmers' National Bank at Hillsboro, Texas, and W. H. Craig, cashier of the Beckham National Bank, of Graham, Texas.

Virginias Newton has been elected president of the First National Bank of Richmond, Va., and John B. Purcell, vice-president.

Arrangements have been made to extend the issue of \$147,000 worth of Winchester & Potomac Railroad bonds, due on July 1, until 1899. The negotiations were carried on through the banking house of Robert Garrett & Sons, of Baltimore.

The bank clearings of Atlanta, Ga., for the six months ending June 30 show that the amount cleared was \$1,000,000 more than for the same period of 1896. This gain was made in spite of the fact that two members of the clearing-house doing

J. WM. MIDDENDORF.

Members Baltimore Stock Exchange.

WM. B. OLIVER.

MIDDENDORF, OLIVER & CO.
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OUR FACILITIES ARE UNEXCELLED.

business in 1896 have since gone into liquidation.

Baltimore & Ohio RR. Co.
5½ GOLD BONDS DUE 1925

A majority of the above bonds has been deposited with us under the agreement of April 10, 1896, and our engraved Certificates of Deposit therefore have been listed on the New York Stock Exchange.

We will buy, under the terms of this agreement, the Coupons and Interest Instalments maturing August 1, 1897, on Coupon or Registered Bonds deposited before July 15th, 1897, in case the Baltimore & Ohio Railroad Company should make default in paying the same when due.

All Bondholders who have not yet deposited their Bonds are urged to do so at once, so as to enable us to more effectually protect their interests.

SPEYER & CO.

30 Broad Street.

New York, June 2d, 1897.

FOR THE

Renting and Purchasing

OF

Warehouses,
Manufacturing Sites,
Wharf,

and other Business Property,

Apply to

SAFE DEPOSIT & TRUST CO.

OF BALTIMORE.

13 SOUTH STREET.

Mercantile Trust & Deposit Co.

OF BALTIMORE.

Paid-up Capital, \$1,000,000.
Surplus, \$1,000,000.

DEPOSITS RECEIVED

On which interest is allowed, governed by current rates obtainable

TRUSTEES AND ADMINISTRATORS.

This company is a Legal Depository for funds in the hands of Trustees or Administrators, and allows interest on same pending distribution.

Authorized to act as Executor, Administrator, Guardian, Receiver or Trustee.

ACTS as Trustee of Mortgages of Corporations and accepts Transfer Agency and Registry of Stocks.

Safe Deposit Boxes for Rent.

Vaults supplied for Storage of Silver Chests, etc.

JOHN GILL, of R., President

MARYLAND TRUST CO.

Corner South and German Sts.

BALTIMORE.

CAPITAL, - \$1,000,000.

A LEGAL DEPOSITORY FOR COURT
AND TRUST FUNDS.

Acts as Financial Agent for States, Cities, Towns, Railroads and other Corporations. Transacts a general trust business. Lends money on approved security. Allows interest on special deposits. Acts as Trustee under Mortgages, Assignments and Deeds of Trust; as Agent for the Transfer or Registration of Stocks and Bonds, and for the payment of coupons, interest and dividends.

J. WILLCOX BROWN, PRESIDENT.

LLOYD L. JACKSON, FIRST VICE-PRES.

HENRY J. BOWDOIN, SECOND VICE-PRES.

J. BERNARD SCOTT, Secretary and Treasurer

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J. Willcox Brown, Leopold Strouse,
Wm. A. Marburg, Henry Walters,
Basil B. Gordon, H. A. Farr,
Lloyd L. Jackson, H. N. Baker,
Fred. M. Colston, Andrew D. Jones,
H. J. Bowdoin, James Bond,
Frank Levering, Alexander Brown,
Frank Brown, Douglas H. Gordon,
W. B. Brooks, Jr., Clayton C. Hall,
W. H. Baldwin, J. D. Baker,
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Fidelity and Judicial Bonds of every kind Issued by

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Bonds furnished Officers and Employees of Mercantile Houses, Banks, Railroads, Express and Telegraph Companies.

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CAPITAL.....\$500,000.00

STOCKHOLDERS' LIABILITY.....500,000.00

TOTAL RESOURCES.....\$1,000,000.00

HON. FRANK BROWN, President. Governor

of Maryland from 1892 to 1896.

JOHN R. BLAND, Vice Pres. and Gen. Manager.

J. KEMP BARTLETT, JR., Second Vice-Pres.

ALEXANDER PAYSON KNAPP, Secretary.

TOWNSEND SCOTT, Treasurer.

HON. ISIDORE RAYNER, General Counsel.

MARTIN LEHMAVER, Assistant Counsel.

WILLIAM B. RAYNER, Assistant Counsel.

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YOU LIKE
TO OWN AN
INTEREST IN
A GOLD MINE?

Suppose you write for particulars about

THE BIG UNION MINING CO

This company owns and is now opening up rich gold mines in the famous Leadville Gold Belt of Colorado. The officers and stockholders of the company are not speculators but are well-known conservative business men. Here are some of them:

OFFICERS.

R. E. LYON, President.
STEPHEN H. EMMENS, Vice-President.
L. L. POWELL, Secretary.
H. B. TILDEN, Treasurer.
ARCHIBALD H. TAYLOR, Gen'l Counsel.

DIRECTORS.

B. L. Duke, the great tobacco manufacturer of Durham, N. C.
W. T. O'Brien of the American Tobacco Co., Durham, N. C.
Stephen H. Emmens, Pres. of the Mining and Industrial Exchange, New York City.
R. E. Lyon, of Baltimore, Md.
Geo. C. Schuermann, of Baltimore, Md.
L. D. Heartt, Cashier First Nat'l Bk. Durham, N. C.
H. B. Tilden, of Baltimore, Md.

The stock of this company has been listed on the New York Mining and Industrial Exchange. The office of the company is at 849 Equitable Building, Baltimore, Md.

The treasury stock now being offered affords an investment opportunity that is well worth looking into.

The Big Union Mines, the property of this company, lie on the same contact vein with the most noted of the great Leadville mines. One of these the "Little Johnny" is the greatest gold mine in Colorado and perhaps in the world. Its present output is about \$300,000 per month. It paid last year \$1,600,000 in dividends and is now paying monthly dividends of \$100,000 to \$300,000.

For "Classified Index" see pages 3, 5 and 7.

Abbe, M. F.....	21	Canton Steel Roofing Co.....	35	Fort Wayne Electric Corporation.....	49	Many, Frank B.....	27	Robins, A. K., & Co.....	9
Adams, George S.....	35	Capital Traction Co.....	26	Fossick Co., T. L.....	35	Marion Steam Shovel Co.....	2	Robinson, J. M., & Co.....	33
Adams, William H.....	6	Card Electric Co.....	49	Freese, E. M., & Co.....	*	Martin, Hy., Brick Mch. Mfg. Co.....	41	Robinson, Wm. C., & Son.....	32
Ahrens & Ott Mfg. Co.....	14	Cardwell Machine Co.....	38	French, Saml. H., & Co.....	34	Maryland Trust Co.....	401	Robinson & Orr.....	28
Alton & Wood.....	50	Carlins, Thomas, Sons.....	27	Frick Co.....	18	Mason Machine Works.....	38	Rowley & Herrance Co.....	31
Alabama Bridge & Boiler Co.....	9	Carnell, George.....	41	Froehling, Dr. Henry.....	6	Mason Regulator Co.....	45	Ruger, J. W., & Co.....	19
Alber & Byrne.....	6	Caroline Iron Works.....	21	Fuel Economizer Co.....	18	McClave, Brooks & Co.....	18		
Albro, E. D., Co.....	28	Cerver Cotton Gin Co.....	39	Fulton, John.....	6	McCray Refrigerator Co.....	25	Sabel Bros.....	28
Alexander Bros.....	10	Casey, Thos. L.....	25	Fulton Steam Boiler Wks. & Fdry.....	16	McCully, R.....	20	Safe Deposit & Trust Co.....	401
Alexander & McLaughlin.....	41	Castner & Curran.....	8	Furbush, M. A., & Son, Mch. Co.....	38	McDonald, John, & Sons.....	6	Sanders, John.....	*
Allen Anti-Rust Mfg. Co.....	35	C & C Electric Co.....	49			McDowell, Hamilton.....	42	Saunders, D., Sons.....	13
Allentown Hardware Works.....	8	C. & B. Line.....	42	Gallert, S.....	26	McFadden, Charles, Jr.....	6	Schieren Chas. A., & Co.....	11
Alsing, J. R., Co.....	20	Chapman, Wm. A., & Co.....	6	Gandy Belting Co.....	11	McGowan, John H., Co.....	45	Schneider Mfg. Co.....	34
American Cotton Oil Co.....	40	Chapman Valve Mfg. Co.....	46	Garber, D. A.....	25	McKenna, David.....	34	Scott & Williams.....	38
American Engine Co.....	27	Charlotte Machine Co.....	37	Garrett, C. S., & Son.....	35	McLanahan & Stone.....	20	Scott, Nat. G.....	6
American Impulse Wheel Co.....	45	Chattanooga Fdy. & Pipe Works.....	22	Gas Engine & Power Co.....	32	Mecklenburg Iron Works.....	2	Seabury, Charles L., & Co.....	32
American Ship Windlass Co.....	47	Chattanooga Steel Roofing Co.....	34	Gates Iron Works.....	21	Mercantile Trust & Deposit Co.....	401	Shaw, Willis.....	27
American Supply Co.....	37	Chesapeake Belting Co.....	10	General Electric Co.....	37, 48	Merchants & Miners' Transp. Co.....	43	Shawhan, J. Meashe, Electric Co.....	49
Andersen Jun & Co., J.....	*	Chester Steel Castings Co.....	13	General Fire Extinguisher Co.....	42	Meres, C. R., Heater Mfg. Co.....	18	Sherwood Mfg. Co.....	9
Anderson Water, Light & Power Co.....	26	Chicago Belting Co.....	11	Gilbert, C. M., & Co.....	6	Mergenthaler, Ott., & Co.....	8	Shultz Belting Co.....	11
Andrews, A. H., Co.....	29	Chrome Steel Works.....	13	Glaskin, George F., & Co.....	6	Meridian Machine Shops.....	39	Siedler, C.....	27
Andrews, Perry.....	8	Cincinnati Corrugating Co.....	34	Glen Cove Machine Co., Ltd.....	29	Metesser, Lewis.....	16	Simpson, H. P.....	27
Angle Lamp Co.....	25	Cincinnati Elevator Works.....	33	Globe Steam Heater Co.....	16	Meyer, Dr. Otto.....	6	Simpson, J. S. & G. F.....	50
Apollo Iron & Steel Co.....	24	Cincinnati Screw & Tap Co.....	33	Golden's Foundry & Machine Co.....	23	Middendorf, Oliver & Co.....	401	Sinclair, S. H., Co.....	21
Armitage-Herschell Co.....	*	Clark, W. J., Co.....	40	Goubert Mfg. Co.....	16	Milburn, Frank P.....	6	Situations Wanted.....	46
Armitage Mfg. Co.....	35	Clark, Jeremiah.....	38	Graphite Lubricating Co.....	12	Mitshkun, M., & Co.....	28	Skinner Chuck Co.....	42
Armand, C. W.....	35	Clendenin Bros.....	48	Grasty, Robt. Ware.....	26	Montfort, R.....	26	Skinner & Allen.....	32
Ashtabula Tool Co.....	40	Climax Mfg. Co.....	13	Gregory Co., C. E.....	27	Moore & McCrary.....	6	Smith-Courtney Co.....	49
Asphalt Ready Roofing Co.....	50	Clobber Steam Boiler Co.....	15	Guibert, John C. N.....	38	More, Jones & Co.....	32	Smith & Morgan, Co.....	9
Atkins, E. C., & Co.....	31	Coburn Trolley Track Mfg. Co.....	9			Morse Twist Drill Mch. Co.....	12	Smith & Kilby Co.....	45
Atlanta Terra Cotta Co.....	8	Cohoes Iron Fdy. & Mch. Co.....	37	Haines, Jones & Cadbury Co.....	50	Morse, Williams & Co.....	50	Snediker & Carr.....	28
Austin White Lime Co.....	6	Cole, Wm. H., & Sons.....	42	Haines, William S.....	17	Mueller, H., Mfg. Co.....	45	Snow Steam Pump Works.....	2
Automatic Circuit Breaker Co.....	24	Commercial Electric Co.....	49	Hales & Ballinger.....	6	Mundt & Sons.....	21	Southern Lime & Cement Co.....	44
		Commercial Wood & Cement Co.....	6	Harrington & King Perforat'g Co.....	4	Munson Bros.....	22	Southern Iron & Equipment Co.....	28
		Commonwealth Elec. Constr. Co.....	49	Hartford Steam Boiler Inspection		Murphy, John, & Co.....	9	Southern Iron Works.....	22
		Consolidated Engineering Co.....	6	& Insurance Co.....	41	Murray, Dougal & Co.....	39	Southern Log Cart & Supply Co.....	10
		Contractors' Plant Mfg. Co., Ltd.....	8	Hartley's Boiler Works.....	15	Murray, James & Son.....	20	Southern Railway Co.....	43
		Cordesman Machine Co.....	32	Hawes Mfg. Co.....	42			Southern Real Estate Exchange.....	26
		Cordesman, Meyer & Co.....	29	Hayes, O. S.....	25, 26			Spear	